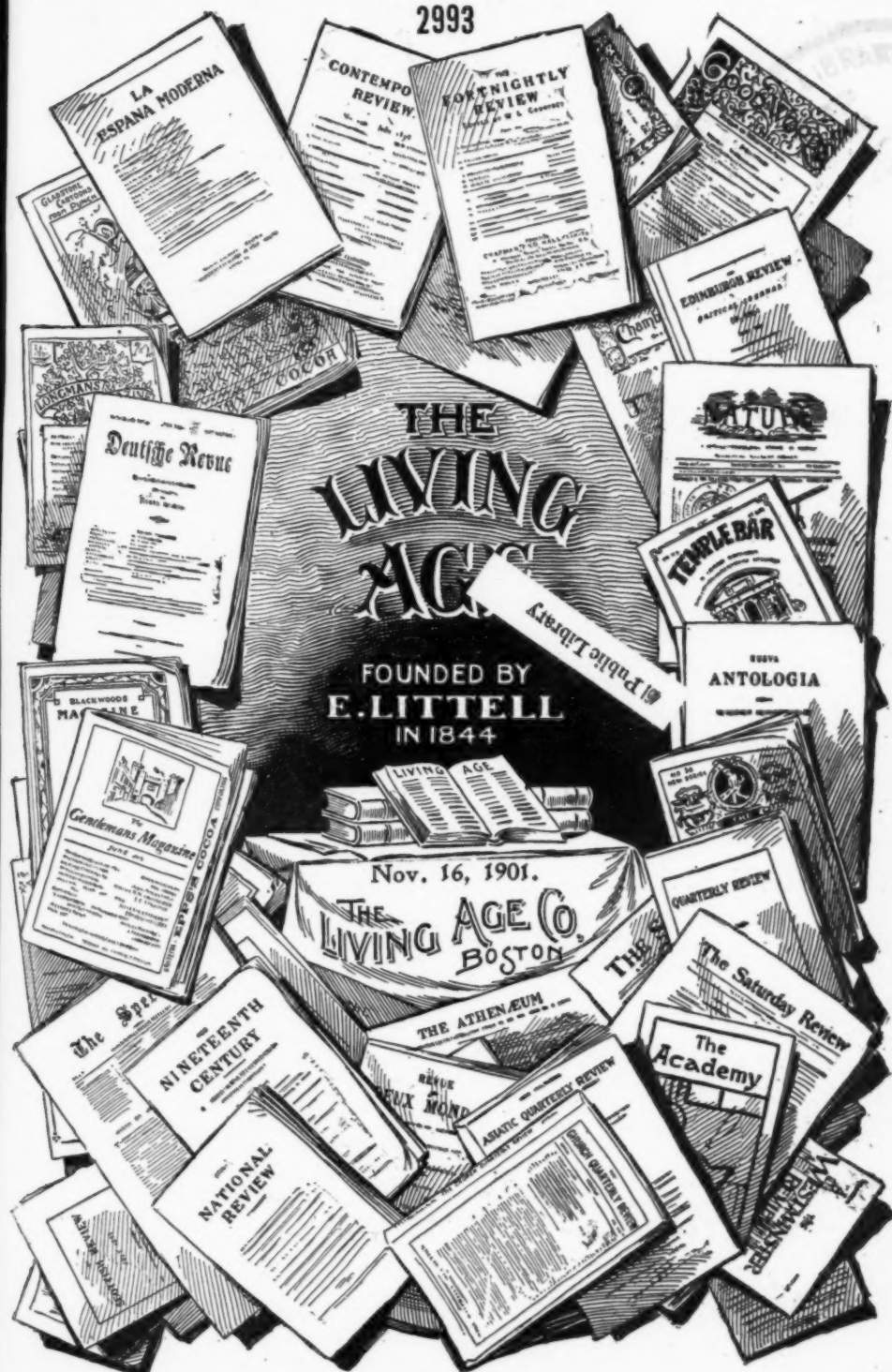


**RECENT SCIENCE.** By Prince Kropotkin.

2993



FOUNDED BY  
**E. LITTELL**  
IN 1844

Nov. 16, 1901.

THE LIVING AGE CO.  
BOSTON

THE ATHENÆUM

The Academy

**NATIONAL  
REVIEW**

**NINETEENTH  
CENTURY**

The

Deutsche Revue

LA  
ESPAÑA MODERNA

CONTEMPO  
REVIEW

**FORTNIGHTLY  
REVIEW**

EDINBURGH REVIEW

## ANTOLOGIA

**TEMPLE BAR**

*Gentlemen*

REVUE  
MOND



QUARTERLY REVIEW

WESTMINSTER

*Entered as Second Class Mail Matter.*

J. J. Arakelyan, Printer, 295 Congress St., Boston.

<p><b>Issued on the 1st and 16th of each month</b></p>	<p>ESTABLISHED 1880</p> <h1 style="margin: 0;">THE DIAL</h1> <p><i>A Semi-Monthly Journal of</i> <b>Literary Criticism, Discussion and Information</b></p>	<p><b>Per year \$2.00; single copy 10 cents</b></p>
<p>"THE DIAL" has always stood for character. It has the old Puritan conscience on which everything that is lasting in our country is built. It is sane, wise, truthful; it is honest, hopeful and kindly, and with all this it is the best journal of literary criticism which we have, and we ask no better.</p> <p>DAVID STARR JORDAN. Stanford University, April 18, 1900.</p> <p>"THE DIAL" is easily our most valuable literary review. It has been faithful to the best literary traditions from the first, and will no doubt continue to be so.</p> <p>JOHN BURROUGHS. West Park, N. Y., April 7, 1900.</p>	<p><b>"The Dial" seems at present the most unbiased, good-humored, and sensible organ of American criticism.</b></p> <p><b>BARRETT WENDELL</b> <i>In "Literary History of America."</i></p>	<p>The good sense, the sound critical judgment, the liberal spirit, the high principles of "THE DIAL," all maintained with simplicity, steadiness, and without pretention, have secured the respect as well as the cordial regard of readers.</p> <p>CHAS. ELIOT NORTON. Harvard University, April 21, 1900.</p> <p>THE DIAL has uniformly directed its energies to the work of upholding the best standards of literary criticism in this country. It has done this with dignity, courage and strength.</p> <p>JAMES LANE ALLEN. New York, April 8, 1900.</p>
<p><b>VERY SPECIAL OFFER</b> For the purpose of introducing THE DIAL to a large circle of new readers, the publishers will mail to each person, not now a subscriber to the paper, who will send us ten cents and mention this advertisement, four consecutive numbers, together with a special offer for a yearly subscription. No obligation is implied by the acceptance of this offer other than the intention to give the paper a full and fair examination.</p> <hr style="width: 20%; margin: 10px auto;"/> <p><b>THE DIAL, 203 MICHIGAN AVENUE, CHICAGO, ILLINOIS.</b></p>		

## THE YALE REVIEW

**A Quarterly Journal for the Scientific Discussion of  
Economic, Political and Social Questions**

Issued on the Fifteenth Day of February, May, August, November

### EDITORIAL BOARD

PROFESSORS HENRY W. FARNAM, WILLIAM F. BLACKMAN, EDWARD G. BOURNE,  
JOHN C. SCHWAB and IRVING FISHER, of the Yale Faculty.

### SOME RECENT ARTICLES

THE SUPREME COURT AND THE INSULAR CASES	By Simeon E. Baldwin
DIRECT TAXES AND THE FEDERAL CONSTITUTION	By Charles J. Bullock
SOME INSULAR QUESTIONS	By Nathaniel T. Bacon
CLARK'S DISTRIBUTION OF WEALTH	By Charles A. Tuttle
THE MEASUREMENT OF UNEMPLOYMENT: A Statistical Study	By William F. Willoughby
BOOK REVIEWS ON RECENT ECONOMIC WORKS	

Single Numbers, 75 cents, Yearly Subscription, \$3.00

Published by **THE TUTTLE, MOREHOUSE & TAYLOR CO.**  
125 TEMPLE STREET, NEW HAVEN, CONN., U. S. A.







# THE LIVING AGE:

*A Weekly Magazine of Contemporary Literature and Thought.*

(FOUNDED BY E. LITTELL IN 1844.)

SEVENTH SERIES.  
VOLUME XIII.

NO. 2993. NOV. 16, 1901.

FROM BEGINNING  
Vol. CCXXXI.

---

## RECENT SCIENCE.

### 1.

The exploration of the higher layers of the atmosphere by the aid of high-level observatories, kites and balloons continues to engross the attention of meteorologists. This is not a mere fashion—science also has its fashions—but an urgent need. To gain knowledge of what is going on in the air, miles above the earth's surface, has become a matter of first necessity. Those who issue the weather forecasts see that they can make no further progress so long as they do not extend their observations higher up in the air envelope of our globe; and those who work upon the theory of the general circulation of the atmosphere come to the same conclusion. Our instruments carefully record the displacements of cold and warm air close to the earth's surface; but it is only at much greater heights that we find the mighty air-currents blowing undisturbed round the earth, and discover the origin of the great "heat waves" and waves of cold weather. Thereto we must go to study them. Glaisher had fully understood this necessity when he undertook his venturesome balloon ascents; but while interest in such explorations

died away in Britain, it was born with a new vigor in the United States, in France, in Germany, in Austria, in Russia, and the work is now carried on with a remarkable zeal.

The idea was, first, to build meteorological observatories on the tops of high isolated peaks. The Sonnblick observatory, which won a world-reputation for its work, the Ben Nevis in Scotland, Jansen's Mont Blanc observatory, Abbas-tuman in the Caucasus, Arequipa in Peru, and so on, were the fruit of that effort—the highest observatory in the world having been planted by the Americans in Peru, on the El Misti peak, at an altitude of 19,200 feet.

These institutions have already rendered good service to science.<sup>1</sup> However, they necessarily remain but few in number; they do not reach the uppermost levels of the atmosphere, and moreover the air-currents which are observed on more or less isolated peaks still remain complicated by the proximity of the plains and the mountains. Consequently, the United States meteorologists, keeping in view their practical aim—the prediction of weather—came to the conclusion that a survey of the temperatures, pressures and air-

<sup>1</sup> Some of the scientific results obtained at the high-level observatories have already been men-

tioned in these pages (*The Living Age*, April 29, 1899).

currents which prevail at a height of, let us say, one mile above the surface of the soil, ought to be made regularly every day over the whole of the American Continent. Seventeen spots were selected for that purpose, and the idea of Willis Moore—the promoter of this scheme—was that every morning kites provided with self-registering instruments would be flown at each of these spots, so as to bring down regular reports of temperature, pressure and so on from the one-mile level above the soil.<sup>2</sup>

The problem was evidently by no means an easy one. A small kite would not lift the instrument-box when the wind was not strong enough, while a big kite was liable to break off its moorings when it met a stronger wind at a higher level, and thus to be lost forever. Finally, the American meteorologists settled upon the Hargrave type of kite, which has the shape of a quadrangular box of which the lid and the bottom have been removed, or rather of a tandem composed of two such boxes. Thousands of such kites of miniature dimensions are now flown by old and young at all watering-places. The meteorological kite is of course much bigger than the toy. It has eighty to ninety square feet of lifting surface (slightly concave), and it is held by a steel piano wire. A spring bridle, a machine for winding up miles of wire when the kite is brought down, and a meteorograph—that is, an instrument weighing a trifle over two pounds, but containing self-registering instruments for taking note of temperature, pressure, moisture, and force of the wind—complete the equipment. The length of the wire which is paid out and the angle of its inclina-

tion give the exact height reached by the kite.

The kite became in this way a powerful aid to meteorology. Gradually perfected, it extended its excursions higher and higher in the air, and while the first kites hardly reached an altitude of 2,070 feet, they now rise beyond 12,000 feet, and thus penetrate into the regions of which the normal temperature is near the Fahrenheit zero. Altogether, the kite offers many advantages. The height it has reached being measured directly, a control of barometric measurements is obtained. Its ascension can be slackened at will so as to be sure that the instruments have taken the temperature of their surroundings, and it may be kept any length of time at a given height so as to represent a real floating observatory. But it has also its disadvantages. Thus the scheme of Willis Moore could only partially be realized, as there are many days (54 per cent. on the average) when the kites cannot be flown, either for lack of wind or on account of too much wind. With all that, the kites were doing good work, when the Cuban War, which put the meteorological service to a hard, practical test, and the subsequent necessity of extending the meteorological net over the West Indies, put an end to the regular kite explorations.

Most valuable data, especially as regards the laws of decrease of temperature in the higher strata of air, were obtained during the 1,217 kite ascensions which had been made in the meantime.<sup>3</sup> It was also found that the kite observations would often warn the meteorologist about the coming changes of weather; a "hot wave" was actually caught while it was coming.

<sup>2</sup> See the very interesting paper by Willis Moore in "Weather Bureau Publications," No. 138 (1897) and No. 101 (1899, reprint from "Forum"), and in a succession of issues of the "Monthly Weather Review," Washington, 1897-1901, vols. xxv to xxix.

<sup>3</sup> H. C. Frankenfield, in "Monthly Weather Review;" also in "Nature," Nov. 29, 1900, lxiii, 106.

As to the clouds, their coming down at nights and their floating higher up in daytime were registered with perfect accuracy by the instruments attached to the kites. Most interesting observations relative to the circulation of air in areas of low and high pressure were also made in this way.\*

While the United States made thus a specialty of kites, France took chiefly to unmanned balloons, or *ballons sondes*. The very first experiments proved to be most encouraging, when an unmanned balloon launched from Paris by Hermite rose to a height of 45,000 feet, its self-recording instruments working perfectly to an altitude of 36,000 feet; while Assmann's unmanned balloon, launched from Berlin, crossed over in ten hours to the Servian frontier, and brought full records of its journey. It rose to about 46,500 feet, where the barometric pressure was only 3 3-10 inches—thus showing that eight-ninths of the whole atmospheric air lay below the balloon. In both cases the temperature at the 36,000-foot level was found to be much lower than it was expected; namely, as low as 60 degrees below the Fahrenheit zero (—51 degrees and —52 degrees Celsius respectively). Eight balloons out of ten came down to the earth in perfect order. Consequently, beginning in the spring of 1898, Teisserenc de Bort, at Trappes, near Paris, has regularly launched his *ballons sondes*, several each month, so that he could report in 1900, and tabulate the results of no fewer than 240 ascensions. A sort of nearly permanent floating observatory was thus established. One-half of the balloons reached the 27,000-foot level, one-quarter rose to 39,000 feet, and several

went beyond the altitude of 42,000 feet (eight miles). Very few were lost. An inscription in different languages, asking those who find the balloon to take care of it and to warn the nearest observatory, promising a reward of a few pounds for that trouble, is quite sufficient—even in Russia—to secure the safety of the messenger which descends from the skies. An excess of zeal is all that is to be feared—the good people who took care of one of the early balloons of Violle going even through the trouble of well polishing a smoked cylinder upon which the records of the meteorograph were scratched by a needle, thus wiping off both "the dirt" and the records.†

At the same time the system of exploration of the atmosphere by means of manned balloons was worked out, especially in Germany, and partly also in Russia, where one of the members of the military balloon staff, Pomortseff, published, in 1891, the results of his forty ascensions, and fully confirmed Hann's conclusions as regards the distribution of temperature in areas of low and high pressure. However, isolated observations, even when they are numerous, are not sufficient, and at the international aeronautic conferences of 1896 and 1898 it was agreed between Austrian, Bavarian, Belgian, French, German and Russian aeronauts that international ascents at the beginning of each month would be organized. Manned and unmanned balloons, as also captive balloon-kites, consequently start in considerable numbers on given days from Paris, Brussels, Strasburg, Munich, Berlin, Vienna and St. Petersburg—all provided with identical or similar instruments, approved by the conferences. In this interna-

\* Especially on September 21-24, 1898. See Helm Clayton's "Studies of Cyclonic and Anticyclonic Phenomena with Kites," in Blue Hill Observatory "Bulletin," 1899, No. 1.

† See Teisserenc de Bort's reports in "Comptes Rendus," 1899, vol. cxxix, pp. 131 and 417, and

1900, vol. cxxxi, p. 920. Analyzed and discussed by Cleveland Abbe in "Monthly Weather Review," September, 1899, p. 415 (tables); by W. Trabert before the Natural Sciences "Verein" at Vienna, and in "Jahrbuch der Naturwissenschaften," xv, 246; and in "Nature."

tional exploration Germany stands foremost with her manned balloons, the difficulty of breathing in the extremely rarefied air of the great altitudes having been overcome by taking a supply of oxygen. In this way Dr. Berson could reach at Berlin an altitude of 9,155 metres (30,030 feet), and so long as his supply of oxygen lasted he experienced none of the symptoms of "mountain disease." No man had been before at such a height, but even this record was beaten on the 1st of August last by Berson and Süring, who reached the altitude of 10,300 metres (33,700 feet), finding there a temperature of  $-40$  degrees Fahrenheit. As to the unmanned balloons, they have explored, of course, still greater heights; the capricious Berlin balloon sonde "*Cirrus*" rose as high as 53,500 and 60,600 feet, while one of Teisserenc de Bort's unmanned balloons went to a height of 22 kilometres, i. e., about 13 1-2 miles.

The results obtained from all these explorations of the last twelve years are already full of importance. Every one knows that the temperature of the air decreases as we rise higher and higher in the atmosphere, and that the summits of our high mountains lie amidst layers of air so cool that the snow does not disappear from them.

There may be occasionally a local inversion of temperatures—that is, in certain localities, under certain conditions, especially under a cloudy sky, the temperature may increase up to a certain height; but as a rule it decreases as we rise above the soil at a

rate of from three to five Fahrenheit degrees for each thousand feet. Consequently, even in summer we find in middle Europe the temperature of freezing at a height of from 6,600 to 10,000 feet, and a still greater cold prevails at still greater heights.

However, it was never expected by meteorologists that the upper layers of the atmosphere would be so cold as they are in reality. It appears now that all the observations of Glaisher, upon which our knowledge of the upper layers was chiefly based, gave too high temperatures. Not only because a thermometer, unless it is very sensitive and the air round it well ventilated, takes some time before it shows the real temperature of the layer of air which the balloon is piercing, but especially because of the solar radiation, which, in the high layers of a rarefied atmosphere and in the full sunshine which reigns above the clouds, is very strong, and overheats the instruments. This was one of the first difficulties which the meteorologists had to overcome before such perfected instruments as Assmann's psychrometer and the instruments of Violle and Teisserenc de Bort were introduced. Thus it appears now that the average temperature at an altitude of 20,000 feet is 13 degrees *below* the Fahrenheit zero (as against Glaisher's 3 degrees to 32 degrees Fahrenheit), and that at the altitude of 25,000 feet the air is full 35 degrees below the Fahrenheit zero, instead of the minus 4 degrees to plus 16 degrees Fahrenheit which Glaisher gave for that altitude.<sup>6</sup> Such low temperatures pre-

<sup>6</sup> In order to be sure that the distribution of temperatures over the British Isles is not very much different from what it is over North Germany and North France, Berson and Süring made two simultaneous ascensions—the one, in his own balloon, from London, and the other from Berlin. At the altitude of 20,000 feet both found almost identical temperatures, which were the usual ones for that time of the year. Direct

experiments were also made upon a thermometer placed in the way Glaisher used to place his instrument: it gave much too high readings. As it is known, however, that the gradient of temperature-decrease is different on the Atlantic border of the United States and in the interior of the continent, it is most desirable that Britain should at last join the Continental nations in their exploration of the atmosphere.

vall, it must be remarked, all the year round.<sup>7</sup>

Another important fact was revealed by these explorations. It was generally believed that the decrease of temperature becomes slower and slower in the higher portions of the atmosphere. It appears, however, that at great altitudes it is the reverse which prevails. The ration of decrease, which is about three Fahrenheit degrees for each 1,000 feet in the lower strata, grows higher and higher, reaching nearly twice as much at the highest levels. This upsets many a current theory.

It would be impossible to analyze here the extremely interesting deductions which Cleveland Abbé makes from the explorations of Teisserenc de Bort, or those which Bezold draws from the German balloon explorations; still less would it be possible to mention the mass of information contained in the luxuriously edited "*Wissenschaftliche Luftfahrten*." Two points, however, deserve a special mention. One is the quite unexpected discovery that the difference between summer and winter is felt even at such great altitudes as 30,000 feet. Of course, the seasons are not so well pronounced there as they are with us; but even at this great height they are fully noticeable—the average temperature of the 30,000-foot layer in March being about 65 degrees below the Fahrenheit zero, while that of August (the warmest month) is only —44 degrees.<sup>8</sup> Higher up, the layers of extremely thin rarefied air are even much cooler than that, and rapidly merge into the frozen depths of the interplanetary space.

<sup>7</sup> Here is a table which will give an idea of the distribution of temperatures (in Fahrenheit degrees) in the atmosphere. Trabert obtained it

Height in feet:	The soil	0,600
North Germany	50 deg.	32 deg.
North France	48 "	32 "

<sup>8</sup> Edited by R. Assmann and A. Berson. Bezold's introductory review, very suggestive, has appeared as a separate pamphlet.

Another extremely interesting fact is this. Every one knows the spell of cold weather which we experience in Europe and Northern Asia about the middle or in the first half of May—the so-called *Saints de glace* of the French peasants. This "cold wave" has long since been a puzzle for meteorologists. It is so widely spread that some cosmic cause—not telluric—was suspected; but then, the retardation with which the cold reaches Siberia, whereto it comes about the 20th or 22d of May, was an argument against the cosmic origin of the cold wave. If it were due to the earth entering an especially cold portion of the solar system, no such retardation would take place.

Consequently, an international balloon ascent was organized on the 13th of May, 1897, balloons starting on that day from Strasburg, Berlin and St. Petersburg. These ascents proved that the cold wave surely is not due to some small local disturbance, such as icebergs and the like. It is caused by a mass of air, 30,000 feet thick and covering all Europe, which is brought into a rotatory motion, so that cold air from the north is brought down upon Western Europe, while warm air is poured upon Eastern Europe from the southwest. What is the cause of that regularly recurring rotation of the atmosphere we do not know yet, but the amount of energy it represents is immense, and its cause must be consequently more general than mere local disturbances.

Altogether when one rises in a balloon far above the petty asperities of

by comparing the German results with those of Teisserenc de Bort:—

16,500	23,000	26,000	32,800
1 deg.	—20 deg.	—36 deg.	..
3 "	—20 "	—36 "	—60 deg.

<sup>9</sup> Teisserenc de Bort, in "*Comptes Rendus*," 1900, vol. cxxxi.



the earth's surface, one finds also a much simpler distribution of temperatures, pressures and air-currents; and it will be through such data as those which were collected during an international ascent on the 3d of October, 1899, that knowledge will be won about the cyclonic and anti-cyclonic disturbances to which our weather is due.

## II.

When a mathematician intends to analyze the effects of some cause over a wide series of phenomena, he willfully neglects in his calculations a number of secondary causes interfering with the same phenomena; he tries to ascertain the effects of the main cause in their simplest form. He calls then the result which he has obtained "a first approximation." Later on, after all the effects of the main cause have been studied in detail and verified upon thousands of applications, and when it appears that the main cause is not sufficient to explain all the phenomena, then a generation or two of explorers apply their energies towards disentangling the effects of all those causes which were neglected at the outset, but some of which may entirely alter the aspect of phenomena. They endeavor to find a new expression for the law enunciated in the first approximation, to discover some still broader generalization of which the first would appear as a consequence, or as a particular case only.

All sciences proceed in this way. All "natural laws" (as was admirably expressed once by Mendeléeff in the discussion of his own periodical law) have the same character of successive approximation—Kepler's laws of the movements of planets; the Boyle-Marriott's law of gases; nay, universal gravitation itself, whose cause and relations to attractions and repulsions at small distances have yet to be found. The

more so is it true of the series of great discoveries which were made in 1858-1862: the kinetic theory of gases, the mechanical theory of heat, the periodic law of chemical elements, the physico-chemical basis of life, the cell theory, the origin of species. All these are now under revision, not because any one doubts the mechanical origin of heat and electricity, or the physical basis of life, or the mutability of species, but because nearly all that could be done on the solid ground of the "first approximations" has been done, and new, still more generalized expressions of these natural laws are sought for. Of course, the "man in the street" and the semi-scientist who knows something of the results of science, but is not familiar with the methods of scientific discovery, never fail to raise at such times their voices and to proclaim "the failure of science." In reality, however, these are periods when the birth is prepared of still wider and still deeper generalizations.

This remark applies to the theory of evolution. The main points which Darwin and Wallace had so much difficulty to prove are now established truths. Nowadays there is almost no man of science who would not admit—even at the risk of being excommunicated by some Church—that all the species of plants and animals have been slowly evolved in the course of ages out of a common stock of simplest organisms; that new species are evolved still; and that natural selection plays a very important part in fixing the variations which continually appear among both plants and animals. But the naturalist is no longer satisfied with these statements. He wants to know (as Darwin himself wanted) the cause of the variations which we call "accidental." Are they really "hap-hazard," or, maybe, do they take certain definite directions—partly under the influence of environment, and partly under the

guidance of previous evolution? And if it be so, what is the real part of natural selection in the evolution of new species? In other words the naturalist is no longer satisfied with saying that—supposing there were no other causes at work but the accidental individual variations which appear in each species, the hereditary transmission of these variations, and natural selection in the struggle for life—these three causes alone would do to explain the origin of species and their marvellous adaptation to environment. He wants to know not how species *may* have originated, but how they *do* originate in reality.<sup>10</sup>

It would be materially impossible to give even a faint idea of the immense, overpowering amount of work which is being done now in this direction, and still less of the numerous side-issues involved in this work. One group only of these researches will consequently be analyzed in the following pages: the work that is being done, experimentally, in order to see how the structure, the various organs, and the forms of plants and animals are modified by environment. "Experimental morphology" or "physiological morphology" is the name of this young branch of the science of evolution.

Variability is a law of Nature. Just as there are not two men exactly alike, so there are not two plants or two animals which would not differ from each other in many respects. It appears, however, that variability, even if it be quite accidental and "hap-hazard," has its laws. If we measure the length of the wings in a great number of birds, or the dimensions of many crabs, or the stature of many men, we find that the accidental differences below and

above the average are submitted to the same laws as accidental errors in a physical or astronomical measurement. The number of small variations is very great, while the larger ones are relatively few—their number decreasing (roughly speaking) in proportion to the square of the size of the variation. This law, enunciated long ago by Quételet, has been proved by Wallace, Galton, K. Pearson, Weldon, Lloyd Morgan, De Vries, and many others to apply to most morphological and even to psychical phenomena. Moreover, it appears that although individual variations are greater, as a rule, than they were supposed to be, they soon reach a limit. Galton has proved, and biologists have confirmed it, that the more exceptionally some peculiarity is developed in a number of individuals, the more their descendants will have the tendency to revert to the average type; there will be a "retrogression"—a "return to mediocrity"—unless some external or inner cause tends to accentuate variation in the same direction.

Altogether Quételet's law applies only to those cases in which variations are strictly accidental—that is, hap-hazard in the true sense of the word; in such cases the variations in one direction compensate those which occur in the opposite direction; and if we figure them by means of a curve, the curve is symmetrical. But in very many cases the curves are not symmetrical; the variations below the average are not equal in numbers to those above the average. We have then, as W. T. Thiselton-Dyer would say, "a stimulated variation."<sup>11</sup> The curve may even indicate by its form the appearance of a new incipient spe-

<sup>10</sup> Many works dealing with the present position of the theory of natural selection have been published lately. The following two may be recommended to the general reader: "The Method of Evolution," by Professor H. W. Conn, New York, 1900; and "Ueber die Bedeutung und Trag-

weite des Darwin'schen Selectionsprincip," by L. Plate, Leipzig, 1900.

<sup>11</sup> See his most suggestive letter on "Variation and Specific Stability" in "Nature," vol. II, 1895, p. 459.

cies, modified in this or that of its features.<sup>13</sup> In such cases it is the duty of experimental morphology to step in and to find out which cause or group of causes may tend to modify the species.

An immense amount of work is being done now in this domain;<sup>14</sup> and it is a growing conviction among biologists that, at least as regards plants, there is not one single organ which could not be modified in a permanent way by merely altering the conditions of temperature, light, moisture, and especially nutrition, under which the plant is reared at certain early periods of its development. A few examples will better illustrate what has been achieved in this direction.

Beginning with the lower organisms, Chamberland and Roux proved in 1883 that the mere keeping of bacteria in an antiseptic substance will totally modify them. A new species will be created, which will differ both in form and physiological functions from its ancestor—a species which will propagate, retaining its new characteristics. L. Errera, on the other side, has proved, not only the powers of adaptation of certain fungi to new media, but the hereditary transmission of their adaptations as well—the new generation thriving much better in the new medium to which it has adapted itself than in the medium in which its ancestors formerly used to grow;<sup>15</sup> and the researches of Professor Klebs, Ray and Schostakowitch upon some other fungi further confirm and develop

these views.<sup>16</sup> It may only be remarked that although these researches on lower organisms are considered by biologists as quite conclusive, and applicable to higher organisms as well, they do not very much appeal to those who are not specialists in these branches.

However, there is no lack of evidence taken from the higher plants. The experiments of Gaston Bonnier are especially striking. His earlier work was already mentioned in these pages,<sup>17</sup> and it was shown how, by transplanting several plants from a valley to an Alpine level in the Alps and the Pyrenees, or *vice versa*, he entirely changed, in one single generation, both the general aspect of the plant and its inner structure. Both were rendered "Alpine" in a plant taken from the valley, and *vice versa*; and new races or varieties adapted to their new surroundings—"incipient species," to use Darwin's words—were thus obtained under the direct influence of environment.

During the last few years Bonnier has made his experiments even more conclusive by submitting plants to artificial cold and excessive moisture—permanent in some experiments and alternating with warmth and dryness in others. In this way he transformed valley plants into their Alpine varieties in the course of a couple of months. He took several annual and several bi-annual plants—obtained from the same seeds or from a division of one individual—and divided them into four lots. Lot 1 was brought up in a box provided with a glass wall turned

<sup>13</sup> C. B. Davenport, "A Precise Criterion of Species," and J. W. Blankinship, "The Chief Differential and Specific versus individual Characters," in "Science," May 20 and June 3, 1898; fully analyzed by Varigny in "Année Biologique," iv, 470 seq. The mathematical treatment of the variation curves is, as is known, busily carried on by K. Pearson. A comprehensible analysis of the methods used in these researches will be found in Geo. Duncker's "Die Methoden der Variation-Statistik," Leipzig, 1899; and in C. B. Davenport's "Statistical Methods, with Special

Reference to Biological Variation," New York, 1899.

<sup>14</sup> Part of it has been already mentioned in these pages, "Nineteenth Century," April, 1894.

<sup>15</sup> "Bulletins de l'Académie de Belgique," 1899, p. 81.

<sup>16</sup> J. Ray, in "Revue Générale de Botanique," 1897, vol. ix; analyzed in full, with valuable remarks, by M. Radais in "Année Biologique," iii, 501; Schostakowitch, in "Flora," vol. lxxiv, p. 88.

<sup>17</sup> "Nineteenth Century," April, 1894.

northwards and kept by means of ice at a low temperature, which only varied between 38 degrees and 48 degrees Fahr., while moisture within the box was kept at from 80 to 96 per cent. Lot 2 was cultivated in the open air at Fontainebleau, and was thus submitted to the usual summer variations of temperature (59 degrees to 86 degrees Fahr.) and moisture (from 64 to 91 per cent.). Lot 3 was submitted, like Alpine plants, to the extremes of temperature and moisture; it was brought up at daytime in the open air, and at night in the iced box. Finally, there was a fourth lot, submitted to the same conditions as 1 and 3, but less severe, in a warmer box. In two months the plants of the first lot, and especially those of the third lot (submitted to sudden changes), had already taken the general and the special characters of Alpine plants—smaller size; stronger stems with short internodes; smaller, thicker and stronger leaves; and, with those of them which bloomed, a more rapid blooming. The plants of the third lot had even taken the reddish color of the leaves characteristic of Alpine plants (due in both cases to the presence of anthocyan), while those of Lot 1 remained quite green. Lot 2 remained, of course, unchanged; and the plants of Lot 4 were more similar to those which had grown in the open air than to those of the two other lots.<sup>17</sup> No better proof of adaptive forms created directly by environment (Buffon's and Lamarck's view) could be given.

Another series of equally successful experiments was made by Bonnier, in order to see whether Fontainebleau plants cultivated on the shores of the Mediterranean would not take the well-known characters of circum-Mediterranean vegetation, due to the special climate-conditions of the region (woody

stems; broader, thicker, leather-like leaves with strong nerves; and so on). Two lots of plants belonging to forty-three different species, some of them bi-annuals, but originated in each case from the same individual, were grown—one lot at La Garde, near Toulon, and the other at Fontainebleau in soil brought from La Garde. Nearly all species of the first lot took, in the very first generation, more or less the Mediterranean aspect, but none of them showed variation in the opposite direction. During the second summer the changes were even more marked. The Fontainebleau species, *Senecio Jacobaea* (Ragwort *Senecio*), became similar in several of its characters to the Mediterranean species, *Senecio nemorosus*; our common ash, *Fraxinus excelsior*, became like the *F. parvifolia*, G. G., of the Mediterranean coasts; and so on.<sup>18</sup> The importance of these experiments need not be emphasized. When we see that environment so rapidly creates itself the adaptation, we shall necessarily be more cautious in speaking of the natural selection of quite accidental individual variations.

If Bonnier's experiments stood quite alone, they would already carry a considerable weight; but at the present time any number of similar researches and experiments could be mentioned—all telling the same tale of a direct action of the conditions of growth for producing considerable and rapid adaptive changes in plants. Joh. Schmidt, for instance, obtains at will the anatomical structure of the leaves in the sea-pea (*Lathyrus maritimus*) which characterizes the East Danish or the West Danish specimens of this species by simply adding more or less salt to the water with which he waters his cultures, or by altering the amount of exposure to

<sup>17</sup> "Comptes Rendus," 1898, vol. cxxvii, p. 307; and 1899, vol. cxxviii, p. 1143.

<sup>18</sup> "Comptes Rendus," 1899, vol. cxxix, p. 1207.

sunlight during germination.<sup>19</sup> K. Goebel shows the alterations which strong light produces in leaves, and the potency of the habitual inherited forms.<sup>20</sup> G. Haberlandt, not satisfied with merely altering the color or the shape or the number of existing organs, creates a new organ for the secretion of water from the leaves of a tropical liana.<sup>21</sup> Hermann Vöchting, continuing his extremely interesting, previously mentioned researches into the effects of low temperature and considerable light-intensity, obtains in this way rampant varieties of plants, and maintains in them a sexual reproduction.<sup>22</sup> De Vries, by cultivating a South African composite plant, *Othonna crassifolia*, and its near congener, *Othonna carnosa*, in both moist and dry soil and atmosphere, obtains two quite different plants.<sup>23</sup> W. Wollny, taking up the whole question of the influence of moisture upon the forms and the structure of plants, proves by experiments conducted in three separate conservatories—one very dry, the other very damp, and the third of an average dampness—that this factor alone is capable of producing the most important modifications in plants, both in their forms and their structure. A great dampness increases, of course, the growth of the stems and leaves, but hinders the development of chlorophyll; the stomates appear on both sides of the leaves and increase in numbers and size; while the thorns of our common furze (*Ulex europæus*) are

completely transformed into leaves—that is, he obtains by surplus moisture the opposite of what Lhôtellier obtained in a very dry atmosphere.<sup>24</sup> And so on.

In short, we have by this time a quite solid body of evidence to prove that in plants adaptive forms are created by the direct physical action of environment.

Let us next consider, then, two other series of researches which have a bearing upon two other important points of the theory of evolution. Both were made by the Dutch botanist De Vries, one of the greatest botanists living. For the last fifteen years De Vries has cultivated a great number of so-called monstrosities, or rather aberrant types, such as the five-leaved clover or the many-headed poppy (*Papaver somniferum polycephalum*), of which the stamens have been transformed into a great number of carpels, so that the poppy-head is surrounded by a crown of secondary heads. It is now a favorite with some gardeners. The conditions under which these new varieties have been obtained were carefully studied by De Vries, and his conclusion is that—taking the poppy as an instance—it entirely depends upon heavy manuring or not, upon the keeping of seedlings wide apart or crowded, and upon the supply of temperature and light—upon *nutrition*, in a word (taking nutrition in its old, wide sense)—whether we obtain from the seeds of

<sup>19</sup> "Botanisk Tidskrift," 1890, xxii, 166; analyzed in "Naturwissenschaftliche Rundschau," xiv, 562.

<sup>20</sup> "Flora," vol. lxxxi, 1.

<sup>21</sup> "Festschrift für Schwendener," analyzed in several reviews.

<sup>22</sup> "Jahrbuch für wissenschaftlich Botanik," vol. xxv, 1893, p. 149; "Berichte der deutschen Botanischen Gesellschaft," vol. xvi, 1898, p. 37.

<sup>23</sup> In "Mutationstheorie," p. 103, he reproduces his photographs of the two plants. He gives also a photograph of Bonnier's Alpine and valley plants.

<sup>24</sup> "Forschungen aus dem Gebiete der Agrikulturphysik," vol. ix, 1898, p. 397; "Naturwissen-

schaftliche Rundschau," xiii, 617. A very suggestive work by Julius Sachs, "Mechanomorphosis and Phylogeny: a Contribution to Physiological Morphology" ("Flora," 1894, p. 215), must be indicated in this place. He deals in it with a group of physiological causes, common to most plants, which necessarily must act in producing this or that form, and thus produce parallel forms in the different large divisions of the vegetable kingdom. Stahl's classical work on the influence of lighted and shaded position upon the leaves ("Jenner Zeitschrift," xvi, 1883) may also be mentioned in this place, as also O. Hertwig's "Mechanomorphosis," the work of Professor Kny, and so on.



the many-headed variety of poppy a similarly many-headed progeny or individuals which will only have the rudiments of the additional heads. But these influences, to be effective, must bear on the plant in its early youth, during the first six or seven weeks after germination. The maintenance of a new variety is a mere matter of nutrition, De Vries says, and "selection is simply the picking-out of the best-fitted individuals." "The acquired characters, as the name goes in zoology and anthropology, have their parallel in botany in the *nutrition-modifications*."<sup>25</sup>

Now—and this is the main point—De Vries, like most botanists, does not doubt a moment that these "acquired characters" are transmitted by inheritance from the mother plant to its progeny. Without such a transmission, of which the botanist sees such an abundance of illustrations, no cumulative selection would even be possible.<sup>26</sup> In fact, if a certain deviation from the normal type—say, a five-leaved clover—has been obtained by plenty of nutrition, the progeny of this plant will give as much as 50, 80 or even 97 per cent. of plants showing the same variation—provided high nutrition were maintained. Even in bad conditions, with poor nutrition, the many-headed poppy shows a tendency to reproduce in a succession of generations the additional carpels. Of course, in order to fix the variation, a selection of two

or three generations of best-fitted individuals will be required.<sup>27</sup> But the accumulation of a newly acquired variation is so rapid that De Vries considers two or three—*maximum* five or six—generations as quite sufficient for obtaining the maximum of possible variation of a given character. Vilmorin, as is known, obtained the cultivated carrot out of the wild one in five generations; Carrière did the same with the radish, Buckmann with parsley, and so on.

The other group of researches by De Vries has perhaps a still deeper bearing upon the theory of evolution—I mean, his work upon the sudden appearance of what Darwin called "single variations." They are not submitted to Quételet's law, which applies only to the individual "continuous" variations, but they appear occasionally with certain plants, under certain conditions, and at certain periods with a striking force. In such cases a new species—quite well determined and fully maintained in its progeny, if precautions be taken to prevent cross-breeding—appears all of a sudden, with all its fixed specific characters. Not all plants show this capacity, the great number of them showing a remarkable fixity of characters<sup>28</sup> (Thiselton Dyer made some time ago some excellent remarks upon this subject in "Nature," vol. li), and out of a great number of species tested by De Vries only one, the *Oenothera Lamarckiana*,

<sup>25</sup> "Die Mutationstheorie," vol. i, p. 93, Leipzig, 1901, and in fact all the fourth chapter. The latest researches of J. MacLeod further confirm this idea. See also the previous important work of MacLeod "Over de Bervuchting der Bloemen," Ghent, 1894 (summary in French at the end of the volume).

<sup>26</sup> See "Comptes Rendus," vol. cxviii, 1899, p. 125; also pp. 97-100 of "Die Mutationstheorie," vol. i. It must also be remarked that De Vries has a voice in these matters. He is one of the pleiade of anatomists represented by Van Beneden, Boveri, Strasburger, Guignard, Fol, the brothers Hertwig, Maupas, Blutschli, Verworn, and many others, upon whose work Weismann's

theory—or, rather, rapidly altered theories—was based, and he is the author of "Intracelluläre Pangenesis." The substance of this work was mentioned in a previous review: "Nineteenth Century," December, 1892.

<sup>27</sup> Hugo de Vries, "L'Unité dans la Variation" "Revue de l'Université de Bruxelles," iii, April, 1895; "Alimentation et Sélection" ("Volume jubilaire de la Société de Biologie," Paris, 1899). Both summed up in "Mutationstheorie," first fascicule, ch. iv.

<sup>28</sup> Judging from a foot note in "Mutationstheorie," the plants capable of such variations may be more numerous than may be thought.

displayed the capacity of giving origin all of a sudden to several new species; but it possessed it to a wonderful extent, no fewer than seven new species having been obtained in the course of a few years—not by means of selection, but in consequence of spontaneous variation. Each of the new species appeared quite fixed in the cultures, the individuals of the fifth or sixth generation of the new species being exactly alike to those of the first generation. However, these facts are so significant, and yet so new, that their bearing upon the theory of evolution cannot yet be appreciated in full.<sup>29</sup>

It may be said, of course, and it has been said, that new races of domesticated plants and new varieties obtained by botanists in special conditions are not lasting; that they retain their new characters only so long as the conditions under which they have been bred continue to exist, but they return to their primitive form if they are let grow wild. But the same—we now learn—is true of wild species as well. The wild carrot and the wild radish also cease in a few years to be what they have been for hundreds of generations as soon as they are placed in conditions of an especially favorable nutrition. The Alpine plant surely is a very stable species or sub-species, but it becomes quite a new plant when it is grown in the lowlands. It seems therefore that we must accustom ourselves to consider the species as nothing else but a temporary equilibrium established, under given conditions of environment, between hereditarily transmitted dispositions (the accumulated result of previous evolution) and the given conditions of climate, living surroundings, and nutrition—a variable function, the mathematicians would

say, of these four variables. This is, at least, the conclusion one is forcibly brought to by the study of the researches faintly sketched in the preceding pages.

But what else are all other phenomena of Nature? Are they not, too, manifestations of a temporarily, more or less stable equilibrium between the various forces—an equilibrium which sometimes is destroyed in a few seconds or in a few hours, and sometimes, being itself a product of ages, requires ages for being altered?

### III.

Experiments tending to prove that adaptive characters in animals may be a direct result of their physical environment are evidently less numerous than they are for plants. Not only are such experiments more difficult, but they require also accommodations which the zoologist seldom has at his disposal. Our marine and lacustrine biological stations are few, and inland zoological stations are still smaller in numbers. Still, there are already a few researches which will throw some light on the subject.

In lower animals variations are easily obtained by altering their surroundings. Thus K nstler has found that with the protozoa a slight change in the conditions of their life, such as the keeping of the basins of the zoological garden all the year round under glass, results in considerable variation which renders certain species unrecognizable.<sup>30</sup> With higher organisms variation must necessarily be slower, but it is none the less evident. H. M. Vernon, who has experimented upon something like ten thousand larv  or *plutei* of echinoderms—chiefly sea-ur-

<sup>29</sup> In "Mutationstheorie," of which the second fascicule is just out, the new species are fully described, with colored plates and photographs of seedlings.

<sup>30</sup> "Actes de la Soci t  Linneenne de Bordeaux," vol. lili, p. 1; summed up in "Annuaire Biologique" for 1898, iv, 450.

chins—has found that the sizes of the larvæ and the proportions of their different parts may be altered by mere changes of temperature. If the temperature of the water in which the fecundation of the eggs takes place be lowered to 46 degrees Fahrenheit, be it only for a minute, or raised beyond a certain limit, the obtained larvæ are by about 5 per cent. shorter than the average ones. If a small quantity of fresh water, or an extremely small quantity of uric acid, be added to the salt water in which the larvæ are bred, they will increase in size by from 10 to 15 per cent.; and in all cases the proportion of the appendages to the body will be altered. Individuals which, if they were found isolated would have been described as separate sub-races, are produced by mere changes of temperature, salinity and proportion of nourishing substances in water.<sup>21</sup>

The researches of Dr. A. Viré into the cave-dwelling animals of France, and especially the experiments he has made, under Milne-Edwards, in a laboratory specially arranged for this purpose in the obscurity of the Paris catacombs, are still more conclusive. It is known that the animals which live in caves and subterranean streamlets offer certain peculiarities. In most cases they are blind; their eyes have been atrophied, while the organs of touch and smell (Leydig's "Riechzapfen") have taken a considerable development. The animal takes altogether a form so different from its nearest relatives living in broad daylight that the cave-dwellers are usually described by zoologists as separate species. As to the current explanation of the cave forms, it is well known. Out of countless accidental individual variations which occur in each species (slightly less developed eyes, slightly

increased organs of the other senses), natural selection has picked out, in a long succession of generations, those individuals which accidentally exhibited variations favorable for cave-life. They survived and left progeny, while those which did not exhibit the useful variations died out. An explanation, by the way, which it is easy to suggest, but very difficult to submit to the test of experiment. Volumes have consequently been written to prove that such a "retrogressive variation" of certain organs offers no difficulty for the theory of natural selection.

The researches of Viré lead the whole discussion in a different channel—that of experiment. A few years ago Viré and Raymond discovered in the Cévennes caves two crustaceans which were described by Dollfus as new species (*Sphæromides raymondi* and *Stenasellus viréi*).<sup>22</sup> Both crustaceans had no eyes, but the organs of touch (fine, movable hairs) and the organs of smell (the "Riechzapfen") had taken a considerable development. The latter were especially large in comparison with those of the common *Asellus* which lives in the open-air little streams about Paris. It was found also that while the common *Asellus* of the streams has a well-developed eye, colored black, the same *Asellus* has it much paler when it lives underground, and only a red spot is retained in the catacombs; finally, there is no trace of an eye in the Cévennes *Stenasellus*. This was the result of observation. Then, since 1897, Viré began direct experiments on these animals, which he continued in the laboratory opened in the catacombs. These experiments are only at their beginning, but still they have already given some important results. Placed in the open light, the *Niphargus viréi*, which is colored in

<sup>21</sup> H. M. Vernon, "The Causes of Variation," in "Science Progress," vol. xi, 1897, p. 229.

<sup>22</sup> "Comptes Rendus," vol. cxxv, 1897, pp. 130,

131; Armand Viré, "La Faune souterraine de France," Paris, 1900. The book contains all necessary illustrations and a full bibliography.

rose, becomes covered in a few weeks with pigment spots of a beautiful brown color, thus rapidly returning to its ancestral form. On the other side, the gray-green pigment of the common *Gammarus puteanus* begins to disappear after a ten months' sojourn in the tanks of the laboratory, and with most specimens it disappears entirely after a twenty months' stay in obscurity. As to the growth of the organs of touch and smell, they were developed in a common *Gammarus fluvialis* kept for fifteen months in the catacomb laboratory (in forty-three specimens out of a lot of forty-six) so as to attain nearly half the size they have in the cave *Niphargus*. The evolution of the organs of smell begin after a three months' stay in the underground laboratory. It is worthy of note that during the fifteen months that the experiment lasted the eye had not yet undergone any noticeable modification. Altogether the pigment of the eye seems to be much more persistent than the pigment to which the general coloration is due. We have thus in Viré's work, the first steps made towards a real study of the origin of cave forms of animals; and at the very first steps in this direction Nature was already caught in its work of making new species.

A considerable amount of research is being made at the same time in order to find out the physiological causes of color and coloration in the animal kingdom. Every one remembers, of course, the charming chapter "Color and Environment" in Wallace's "Darwinism," written from the point of view of natural selection.

In the Arctic regions [he wrote] there are a number of animals which are wholly white all the year round, or which only turn white in winter. . . . The obvious explanation of this style of coloration is that it is protective, serving to conceal the herbivorous spe-

cies from their enemies, and enabling carnivorous animals to approach their prey unperceived. [And further on:] Whenever we find Arctic animals which, from whatever cause, do not require protection by the white color, then neither the cold nor the snow-glare has any effect upon their coloration. The sable retains its rich brown throughout the Siberian winter. . . . Then we have that thoroughly Arctic animal, the musk-sheep, which is brown and conspicuous; but this animal is gregarious, and its safety depends on its association in small herds.

But what about the Polar fox, it may be asked, one of the most gregarious animals in Steller's times?—the Arctic and sub-Arctic birds which surely need no protection when they come together in scores of thousands to rear their progeny in the Arctic and sub-Arctic lands?—the white Arctic owls?—or the Yakute horses, which also breed in small groups like the musk-sheep, never undergo artificial selection, and yet display that well-known marked tendency for a white coating? So much so that Middendorff, in our discussions in the early times of Darwinism, used to make of these horses a favorite argument to prove the necessity of a *physiological* explanation as against the natural selection explanation. It may also be added that those Russian zoologists who have had much to do with the animals of the Steppes are inclined, too, to look for a physiological explanation of the dusky and sandy coloration of these animals.

The matter is, however, beset with great difficulties, which one realizes in full on reading the honest statement and analysis of our knowledge—or, rather, our ignorance—in these matters which is made by Miss Newbigin in her book "Color in Nature" (London, 1898). We certainly are bound to recognize that the beautiful colors which we see on the wings of the butterflies and the moths are in some way con-

nected with the physiological activity of the insect. Surely, as has been shown by Scudder and further confirmed by A. G. Mayer, in 1897, the markings of the butterflies and moths are not accidental but structural. The markings are disposed symmetrically in the consecutive interspaces between the nervures; the ocelli are usually situated between the same branches of homologous veins; and so on. Even when the markings are changed in our experiments, the changes, as indicated by Fisher,<sup>33</sup> follow certain rules; while other changes may be explained either by an arrest of development or an increased internal activity for maintaining the necessary temperature, as was suggested by Urech. We surely may continue to say that the markings of insects are "accidental;" but we must take the word "accidental" in the sense Darwin used it—that is, due to causes still unknown—and in no other sense but this.

One fact relative to the colors and the markings of a number of butterflies and moths is, however, well established by this time; namely, that they depend to a great extent upon the conditions of temperature and light under which the caterpillars and the pupæ of these lepidoptera have been reared. Such researches were begun some five and twenty years ago by Dorfmeister and Weismann, and have been continued since by Merrifield and Dixey in this country, Standfuss, Fisher, Urech and a number of other explorers. Mr. Merrifield began his experiments in 1887. It is known that

many species of moths and butterflies appear under two different forms—formerly described as two different species—one of which is bred in spring and the other later on in the summer. This "seasonal dimorphism" is widely spread in Nature, and occurs even in plants. Now Merrifield's experiments, in conformity with those of Weismann, Standfuss and others have proved that one of the two seasonal forms may be bred from larvæ of the other form by simply altering the temperature under which the larvæ are reared. The two seasonal forms differ both in color and in their markings, but, to use Mr. Dixey's words, "the pattern or outline of the markings could be made to vary independently of the general coloring, and he [Mr. Merrifield] obtained from the same brood individuals showing summer markings with summer coloring, summer markings with an approach towards spring coloring, spring markings with summer coloring, and spring markings with almost the spring coloring."<sup>34</sup>

As a rule a cooler temperature gave darker colors, and cooling of the larvæ without a subsequent forcing of them in a warm temperature gave the darkest moths. In the common butterfly, *Vanessa urticae*, a moderately low temperature generally deepened the coloring to some extent, lowered the tone of the yellow patches, and spread the dark portions. It appeared, moreover, that the size and, though less markedly, the shape of the wings were affected by the temperature of breeding; or, the wings being somewhat reduced

<sup>33</sup> "Entomologische Nachrichten," 1893, xxiv, p. 37; summed up in several scientific reviews.

<sup>34</sup> The original accounts of Mr. Merrifield were published in the "Transactions of the Entomological Society of London." F. A. Dixey has summed them up in "Nature," December 23, 1897 (vol. lvii, p. 184), reproducing some of the very interesting drawings. A detailed account of Weismann's experiments (frequently mentioned in his previous writings) was only

published in 1895, in "Zoologische Jahrbücher, Abtheilung für Systematik," Bd. viii.

<sup>35</sup> F. A. Dixey expressed, in connection with Merrifield's experiments, the idea that certain of the modifications produced in "*Vanessa atalanta*" by both heat and cold show a return towards the ancestral type of "*V. callirhoe*" and to a still older form of "*V. anesimae*." Fischer, on the basis of his extensive experiments, expressed also the idea that the variations provoked in



in size, the scales became scanty and deficient in pigment so as to show the membrane of the wing.<sup>35</sup> It is also interesting to note that while some cooled specimens of *Vanessa urticae* bore resemblance to a northern variety, some of the heated specimens were like a southern form, and that (as was indicated by Mr. C. W. Barker) the rain-period butterflies of Natal differ from those of the dry period precisely in all those directions in which variation was obtained by cooling. Again, we have in these experiments a peep, so to say, into Nature's ways of originating new species.

Finally we have the well-known experiments of E. B. Poulton, who changed the colors of several common species of British caterpillars from green to various hues of brown and gray by rearing them amidst darkened surroundings (black and brown twigs were mixed with their food, or they were placed in dark-painted boxes, and so on), and the experiments of J. T. Cunningham on fishes. Poulton's experiments are so well known to the general reader from his most interesting popular book, "Color in Animals," as also from Wallace's "Darwinism," that a mere reference to these now classical researches is sufficient.<sup>36</sup> As to the experiments of J. T. Cunningham, although they are less known, they are also very conclusive. It is known that in most fishes the upper surface is more or less colored, while the lower surface remains uncolored and has a silvery aspect; and that this

double coloration is generally supposed to have originated as a means of protection for the fishes. It evidently permits a fish not to be detected by its enemies. However, Cunningham made experiments in order to see whether the absence of coloration on the ventral surface may not be due to the absence of light falling upon it. He consequently kept a number of young flounders in two separate basins, one of which was provided with mirrors so as to illuminate the lower surface of the fishes as well, while the other was of the ordinary sort. The result was that after a time a certain amount of coloration appeared on the ventral sides of the flounders of the first basin, first in the middle portion of the body, and then spreading both ways towards head and tail. It is true that small spots of pigment appeared on the ventral surfaces of a few fishes of the second basin as well, as they often do in nature; but the percentage of spotted individuals was small and the spots did not increase.<sup>37</sup>

It must be confessed that all these researches are only first steps towards the foundation of a science of which the need is badly felt—the physiological experimental morphology of animals. These first steps are in the right direction; but they are very slow, and probably will remain slow so long as the matter is not taken in hand by physiologists. Consequently, without even attempting to touch upon the wide subject of variation in free nature, or of palaeontological evidence, I

butterflies by different temperatures are arrests of development ("Hemmungs-Erscheinungen"), in consequence of which older atavistic forms are fixed; and he developed the same ideas in a book, "Neue experimentelle Untersuchungen und Betrachtungen über das Wesen und die Ursachen der Aberration in der Faltergruppe *Vanessa*," Berlin, 1896. The idea is, however, contradicted by Urech, and needs confirmation.

<sup>36</sup> The experiments are most suggestive, and raise a number of secondary questions, for which the original memoir must be consulted in "Transactions of the Entomological Society of London."

1892, p. 293 (good summary by G. H. Carpenter in "Natural Science," April, 1893, II, 287), as also the memoir of Miss Lillian Gould and two of W. Bateson in the same volume. The memoir of E. B. Poulton contains also observations subsequent to the publication of his book.

<sup>37</sup> "Journal of the Marine Biological Association," 1893, III, p. 111. Summed up in many reviews; also in Miss Newbigin's book. Considerations of space compel me to leave for another occasion the "wilful" changes of color in certain animals which may be better dealt with in connection with mimicry.

will permit myself to mention here one set only of observations taken from this vast domain, because they throw some additional light upon the facts mentioned in the foregoing pages. I mean the well-known wonderful collection of land molluscs which was brought together by J. T. Gulick, and which illustrates the incredible amount of variation that takes place in the family of *Achatinellæ* on the small territory of the Oahu Island of the Sandwich group. Having lately had the privilege of examining this collection at Boston under the guidance of Professor Hyatt, who gave me full explanations about the work he is doing now upon this collection, I will take the liberty of adding a few words to what has been said about it by Wallace and Romanes. The Oahu Island has, as is known, a range of mountains nearly forty miles long along its eastern coast. Several valleys are excavated on the inner slope of this range, and each valley has its own representatives of the *Achatinellæ* land molluscs, which could be described in full conscience as separate species, more than 100 in number, with several hundred varieties. A broad valley separates this range from another shorter and lower range running along the opposite coast.

The doubts which the author of "Darwinism" has expressed concerning the complete identity of climatic conditions in all the valleys are probably justified. There is, I was told, a slight difference between the maritime and the land slope of the first range, and there is, so far as information goes, a difference in the rainfall at one end of this range and at its other end. But when one sees the strikingly minute and yet persistent differences between the species and varieties—each limited to its own valley or valleys—and grows acquainted with Professor Hyatt's

many years' work in order to follow the molluscs in their migrations from the maritime slope to the different valleys of the land slope, and next across the flat land towards the second ridge, and sees the growth of this or that minute distinction in the course of time and migration, one cannot but accept the explanation of Professor Hyatt. Variation once having set in a certain direction has continued in that direction so long as conditions not unfavorable for it have prevailed; and isolation, geographical and physiological, has prevented cross-breeding. On the other side, on examining the collection of Gulick, one feels that one must overstrain the potentialities of that admirable theory of natural selection if one attempts to explain through it the maintenance and growth of such insignificant yet persistent specific characters, as, for instance, the very slightly different markings appearing in this or that species, and gradually developed in the next ones.

We have thus a solid body of evidence growing from year to year, and showing us how variations in the structure and the forms of animals and especially of plants are arising in nature as a direct result of the mutual intercourse between organism and environment. To this Weismann and his "neo-Darwinist" followers will probably reply that all these facts are of little value, because acquired characters are not transmitted by heredity. We have seen that in plants they are. No botanist evidently believes that a scar in a plant or a mutilation can be transmitted, any more than a scar in the ear of a man or a clipped tail in a rat, which, as Celestia remarks, is made to breed immediately after the tail has been clipped. But the most prominent botanists are of the opinion that if the equilibrium between nutrition (in its wide sense) and expenditure has been broken, and a new adjust-

ment has been produced in the plant, this adaptation will be transmitted in most cases by heredity; and that so long as the new conditions last, the plant will *not* have to begin its adjustment afresh in each generation. The effect will be cumulative. We are consequently authorized to suspect—although proof or disproof of this has not yet been attempted—that something similar will be found in animals; that, for instance, the cave animals of Viré, born from his *Asellus* specimens in the underground laboratory, will not have the eyes so developed, and their olfactory organs so undeveloped, as they are in an *Asellus* taken from an open-air stream.

As to Weismann's theoretical views

The Nineteenth Century and After.

one remark only need be added here to what has been already said in a previous Review (April, 1894), namely, that most of the founders of our present knowledge about fertilization refuse to accept Weismann's theories, and that one of them, Boveri, has lately proved by continuing his series of remarkable discoveries that the whole question of heredity is still in a state in which generalizations like Weismann's are premature. They surely stimulate research. But no sooner are they born than they must be recast, new discoveries still rapidly following each other. But this subject is so interesting in itself that it will have to be dealt with separately on some future occasion.

P. Kropotkin.

## PERSONAL EXPERIENCES OF A COLOMBIAN REVOLUTION.

When I accepted an appointment at a South American gold-mine, I little dreamed of the stirring adventure I was destined to meet with on my arrival in the Colombian Republic.

I said good-bye to England's shores on the 5th of July, 1900; and it was on the voyage out, while pacing the deck one evening with the captain, that I first became aware that I might have some exciting experiences, if not actual adventures, on landing. We had been talking of the war in South Africa and the serious state of affairs in China, and discussing as to what might be their outcome.

"It seems to me," said the captain, "that the whole world is in a state of turmoil. With wars and rumors of wars here and elsewhere, it's enough to make a man think the end of the world is near, if he cared to accept the Bible theory as fact. Why, even out

here in Colombia there's one continual civil warfare! Ever since I first began running out to this part of the globe—and that's a good many years ago now—revolution has followed revolution almost as rapidly as the shots from a Maxim gun!"

I felt interested. Before leaving England my firm had casually referred to these revolutions, and had informed me that they were sending out with me half a dozen cases of Marlin rifles and ammunition (described as "small machinery and parts"), as they thought it advisable that their men at the mines should have a few rifles beside them; they might be useful at times when the bullion was being escorted down to the coast. I remembered, too, having once or twice read in the newspapers short accounts of these disturbances; but I had attached little importance to them, as they consisted

of only a few lines stuck in out-of-the-way corners of the papers. The captain's remarks, however, conveyed the idea that the state of affairs was more serious than I had imagined.

"You interest me very much, captain," I said. "Are these risings really serious, then?"

"Some of them, yes—for us; they affect shipping considerably. Why, the last time we were in Colon, the Government and the rebels were having a scrape only a few miles from the port. The Revolutionists, in fact, were driving the Government slowly upon Panama, and fears were entertained that the town would sooner or later fall into the rebels' hands. They outnumbered the Government troops considerably, and had been fighting for several months. The most serious row of all, though," he added, "was the Revolution of 1884, when Colon was razed to the ground; but this latest outbreak promises to be even worse."

My interest was now thoroughly aroused, and I determined that when we reached Colon I would, if possible, see something of the fighting.

To reach my ultimate destination—the mines—my route was across the isthmus from Colon to Panama by train, and from thence a journey for twenty-four hours or so by launch along the Pacific coast. On leaving the launch my travels into the interior on mule-back would take two days or longer if the roads were bad. Being the wet season, the chances were that they would be bad, and the fords perhaps impassable for several hours if the river happened to be in flood. Yes, there promised, at least, to be some little excitement; but in my heart I hoped for more.

At ten o'clock on Sunday evening, 22d of July, we dropped anchor in the harbor of Colon. It was too late an hour to go alongside the wharf with any degree of safety; therefore at the

moment we cast anchor a rocket shot up from our vessel, and the loud report as it exploded announced our arrival.

The brilliant glare of the rocket immediately lit up the harbor, and revealed a warship riding at anchor a little distance off. This, we thought, looked ominous; but when half an hour later a boat came alongside, with an inquiry if we had brought Government reinforcements, we knew that affairs must be really in a bad state. The inquiry being answered in the negative, exclamations of disappointment and a number of "*Carambas!*" were heard. Then we were informed that a thousand troops were expected from Barranquilla—that, in fact, they were considerably overdue.

At daylight, the following morning we weighed anchor, and proceeded towards the wharf. The warship we had noticed the previous night proved to be the French ship *Suchet*, which we supposed was looking after the interests of any of her countrymen who might be there in connection with De Lesseps's fatal scheme, the Panama Canal.

As soon as we had moored alongside, the steamship's agent came on board, and he soon verified my opinion that the revolution was very serious. A few days before, he told me, a Government force had been defeated within two miles of Panama, and had retreated upon the town. Many prominent people, sympathizers of the Government, had locked up their stores and houses in Panama and come across to Colon, fearful as to what might be their fate were they now to fall into the hands of the rebels. From one of these people I learned that several hundreds of Revolutionists had some weeks ago joined hands with the advancing rebel forces, thereby strengthening them considerably; and their approach on Panama had been the cause

of a great deal of excitement and concern.

On 19th July this advance-guard of the Revolutionists had arrived at Corozal, and had met a small Government force. An engagement followed, and the regulars fell back on the main body, which had taken up positions on the outskirts of the city. These troops, at most, numbered only five hundred, while the rebels had nearly three times that number; and unless reinforcements arrived speedily Panama was almost certain to fall. A few days before one of the Panama railroad trains, suspected of carrying Government reinforcements, was fired upon by the rebels, who riddled its cars and blew off the cow-catcher.

At last I should see some excitement, and perchance come in for an adventure or two on the way! I must get to Panama as soon as possible, and see as much as I could. I inquired if the trains went through as usual, or if they had stopped running. I was told that they went through as usual—two trains a day, one in the morning and the other in the afternoon; but passengers travelled at their own risk.

I told the captain that I intended going on at once; but both he and the ship's agent advised me to wait a few days, or at any rate to wire to my company's agent at Panama, and ask him if it were advisable to go on or to remain in Colon, as, in addition to the fighting, the town of Panama was full of yellow-fever, and the ships were taking no passengers.

But my mind was made up. "You see," I told them gravely, "my time only counts from the day I report myself in Panama; and if I have to wait for the fighting to finish or the yellow-jack to play itself out, I might be hung up here for an indefinite time, and that wouldn't suit me at all."

Even had I been disposed to telegraph to my company's agent I could

not have done so, for I learned that the wires had either broken down or been cut that very morning. This being so, I must decide for myself whether to remain in Colon or go on to Panama. I decided on the latter course, but, in case of accidents, left behind me in Colon my personal baggage, also the rifles and ammunition which had been sent out with me from England. Even "small machinery and parts" are likely to get into trouble sometimes, and I had no desire to be accused of attempting to smuggle in contraband of war. These could come on afterwards when things had settled down a little.

I did not, however, leave Colon till the following morning at eight o'clock, by train which was due to arrive in Panama at half-past eleven. The distance being only forty-seven miles, I thought that three and a half hours was a pretty liberal allowance of time to perform it in; but record-breaking is not a feature of the Panama railroad.

A steamer from New York had arrived during the night with half a dozen passengers for various Pacific ports, and these were also going right through to Panama by the early train. Discovering that the passengers knew nothing of the state of affairs, I told them as much as I had ascertained. I soon aroused their interest, and it certainly was not lessened as we left each station behind. One hour, then two, passed without any unusual incident. Surely we must soon hear the sound of shooting? Another half-hour went by, and then from the direction of Panama came the unmistakable sounds of firing, and out went our heads from the windows of the car. Louder and louder became the sounds, and ere long we knew that severe fighting must be in progress, as the firing went on without intermission, and now and then there reached us, above the volleys of the rifles, sounds which told us of artillery in action. We could not be any



great distance from Panama by this time; and so far we had seen nothing. The fighting must be right on the outskirts of the city.

Suddenly, rounding a curve in the line, the Panama Canal Company's hospitals came in sight on the side of a hill to the right, and at the same moment we saw a long row of trenches along the railway bank crowded with troops.

"Good gracious," shouted some one, "they are firing right across the track!"

Now for it! The next moment we were running the gauntlet of a hot fire on both sides. Involuntarily half of our number threw themselves on the floor of the car as the bullets whistled past us, shattering the woodwork and sending a shower of splinters in all directions. A short distance from where I was standing a man was shot through the forehead, and fell dead at my feet. Never shall I forget the sight as long as I live. My head seemed to spin round, and I clutched the back of one of the seats for support; then, as the bullets still whistled around us, I let myself drop to the floor as the others had done. The bullets still rattled through the open windows above our heads, and half a dozen times at least parts of the woodwork were shattered all over the car. In another minute I felt the train slowing up; and, passing under a bridge, we were brought up in the station.

My head was still spinning uncomfortably as I staggered out on to the platform, followed by the other passengers. Although we were out of the line of fire, we could hear the patter of bullets against the corrugated iron roofing of the station, and the smash of glass all around us.

I stood up and looked round me, but for an instant only. Bullets, whose song as they whizzed past and overhead was of the Remington-Mauser, were rather too plentiful for comfort

—if one had a conceit for his health. Then for the first time I became aware that my wrist was bleeding. One of the splinters must have struck me in the train, causing a nasty wound; but in the excitement I had not noticed it.

I made for the cover of the station; but my American companions had hurried into the street, and were rushing wildly in the direction of the town. The sudden and tragic death of their countryman had unnerved them, as indeed it had unnerved me, and they were endeavoring to get away from the scene of disaster as quickly as possible.

The best and only thing to be done, I thought, was to notify the railway officials of what had occurred, if they happened to be in the station. At that moment the conductor of the train came in hurriedly, and I explained to him. He said I had better report it upstairs; so he led the way, and soon I was relating my sad story to the officials. Nothing could be done at present, they said, and the body must remain where it was until the firing had ceased. What on earth had induced us, they asked me, to come that way at such a time? I confessed that my object had been to see something of the fight; but I admitted that my first experience of it had been rather warmer than I had anticipated.

"Well," said one, "you've already seen a little. Up here you'll see more, I guess."

I did see more of it. There, upon the railway bridge, stood about a hundred of the Government troops, who held it against a strong attacking force of the Revolutionists. The position of the Government troops was a strong one, and they held it easily. Their trenches extended to the left of the bridge for some four hundred or five hundred yards, while two Hotchkiss guns commanded the bridge, and a third commanded a hill behind the trenches. The

guns on the bridge, I learned, were worked by an American artilleryman in the pay of the Government, who had been through a good deal of the Cuban campaign, and had fought well at Santiago. He it was who had conducted the Government retreat from Corozal; and he it was who, together with General Carlos Alban, had been instrumental in throwing up these trenches; so that by the time the Revolutionary forces had advanced from Corozal the defences had been long completed.

Early that morning the outskirts of the city of Panama were reached, and the firing commenced from their positions in front of the trenches. These had been constructed along a line running from Trujillo to Guachapall and the bridge over the railroad and thence along Pueblo Nuevo and the La Boca road to La Boca. About eight o'clock in the morning the Revolutionists advanced on the beach from the direction of Pena Prieta, and the Government troops opened fire from the Trujillo. The return of the fire by the rebels subjected the city to a storm of bullets, causing considerable damage to property, and killing and wounding several civilians. So I had arrived in time to see the rebels making a desperate onslaught upon the trenches and the bridge.

In the officials' quarters they had protected their windows—those most likely to be in the line of fire—with strong, double sheets of iron, small spaces between the sheets enabling them to see clearly what was going on outside at a minimum risk.

As I have said, I was just in time to see the Revolutionists attempt to storm the bridge and trenches in the face of a deadly fire with a bravery that one would scarcely expect in men who looked far more like a huge army of ill-kept Italian organ-grinders than soldiers. These rebels wore high, semi-

conical straw hats, with a big brim, and were in most cases barefooted; but their pluck and dash were unquestionable.

The attack seemed to be directed chiefly upon the railway bridge. Time after time did the Revolutionists' cavalry attempt to carry the position; but the American gunner with his Hotchkiss guns played havoc in their ranks, as also did a sweeping cross-fire from the trenches, and time after time the rebels were repulsed. The Government troops showed no less pluck. Once, indeed, with the enemy only a few yards from their trenches, they kept their places; but finally they charged and drove them back with severe loss. In that charge—which took place in Caledonia, near the bridge—amongst others, Don Juan Arosemena, Temistocles Dias and Juan Antonio Mendoza, prominent leaders of the Revolutionists, fell. Hundreds of dead and wounded men, horses and mules lay in and around the Caledonia Road; but the losses on the Government side were but slight.

The idea of a flanking movement never seemed to enter the heads of the rebels; if it did, they made no such attempt. Every time the attack was frontal. The accounts I had read but a few months before of the slaughter of our own Highlanders at Magersfontein came back to mind, and I realized how terrible must have been their task; for here it was clearly shown (though on a much smaller scale) that determined men entrenched and holding good positions could withstand frontal attacks from twice, or even thrice, their number.

The American artilleryman had smashed up the Revolutionists' artillery—only two solitary pieces—hours before; and, with at least three hundred men out of action, it could not be said that the rebels were getting the best of it. The small body of Govern-

ment troops had held their own, and held it well, against an army that had originally outnumbered them by three to one.

Towards evening the firing ceased, and an armistice was arranged to bury the dead and attend to the wounded; and, at the requisition of the Government, the captain of H.M.S. *Leander*, which was then lying in the bay, promptly sent a surgeon and over one hundred ambulance-men to tend the wounded, and very valuable assistance they rendered. The surgeon of the French warship, *Suchet*, who was in Panama, also gave his aid. Several foreigners in the town, the railway officials and myself also assisted in carrying in the wounded. While several of the dead were buried, quite two hundred were laid in the small thatched-roofed houses scattered about the battlefield.

Before noon on Wednesday the fighting was resumed, and continued during the afternoon till sunset, when the Government forces made a gallant sortie, and drove the enemy—who had, as on the previous day, devoted their energies to the storming of the bridge—as far as San Miguel. Firing went on at intervals throughout the night, until half-past four on Thursday morning, when General Campo Serrano and the long-expected Government reinforcements arrived, and detained right behind the Revolutionists, whose retreat was thus cut off. Shortly after daylight on Thursday, 26th July, the rebel forces capitulated on condition that an amnesty be granted to all political offenders. This was agreed to by Generals Campo Serrano and Carlos Alban, and the Revolutionists—numbering nearly a thousand—surrendered, with their arms and ammunition. The killed and wounded on both sides amounted to about seven hundred, and quite four-fifths of this number were Revolutionists.

The American gunner was rather

badly wounded in the leg; but in spite of this and a bad attack of fever, he stuck to his guns till the end; and there is no doubt that the honor of the Government victory was largely due to him.

For the relief of the wounded on both sides the surgeon and ambulance corps of the *Leander* worked splendidly. Indeed, had they been tending their own countrymen, they could not have behaved more kindly. The dead were crowded into the houses round about and arrangements made for their cremation, which, on account of the yellow fever then very prevalent in the town, was considered the safest means of disposing of them.

At the Grand Central Hotel I met my fellow travellers of a few days before. They had not yet recovered from the shock of the death of their countryman, who, by the way, had been conveyed to one of the hotels during the armistice of Tuesday night, for burial the following morning. They told me that on the day they had rushed out of the station they had taken a road leading to the beach, but even there bullets kept dropping round them. Launching a boat they had pulled out into the bay, and sweltered under the hot sun till evening; then, taking advantage of the cessation of hostilities, they came ashore, tired and sick.

I visited the battlefield on the following Sunday morning for the purpose of taking photographs, and found the work of cremation was still going on. The odor at times, when the wind blew in my direction, was sadly oppressive; but when one visits the scene of a stiff battle that has been fought but a couple of days before, and the slain are being burnt, one must not be too fastidious.

There was scarcely a house that did not bear testimony to the recent fighting, and the railway station had suffered as much as any of them, one of

the signal boxes being smashed to pieces. In one house near the battlefield a pitiful sight was seen. A man had barricaded himself in, with his wife and four children; but as the fragile walls had offered little or no resistance to the terrible Mauser bullets, his wife had been killed by one of them. When discovered, the wretched man was almost a maniac; his children, in the agony of fear, clinging about his neck and body like the serpents round Laocoön.

Chambers's Journal.

In the earlier days of the fight, when at one time the downfall of Panama seemed inevitable, one of the Government generals had cleared out on board the English man-of-war, together with other Government officials. Learning a few days later that his side was more than holding its own, he promptly returned; and, being charged with cowardice, he seized a rifle and jumped into the trenches, where he fought side by side with the men he should have commanded.

G. Kennedy Chrystie.

## ACROSS THE HIMALAYAS IN MID-WINTER.

BY THE EARL OF RONALDSHAY.

Every one has his own ideas as to the relative merits of different forms of sport, and I have heard the partisans of fox-hunting and pig-sticking, big-game shooting and fishing, holding heated arguments, each engaged in the obviously hopeless task of trying to convince the other of the superiority of his own particular and favorite sport. As far as my own experience goes, I have never come across any form of sport that has quite the same fascination as the pursuit of mountain big game, and it was due to my fondness for sport of this particular kind, in conjunction with certain private reasons which rendered it expedient that I should return to civilization at an early date, that I found myself embarked on a journey which I would not willingly undergo a second time, however strong might be the inducement.

I had for some time been wandering among the peaks and precipices of the great lonely mountains, in various parts of the Himalayas, and had at length reached a far-off corner of the empire, where the

earth lifts up its hoary head, as it were, to the very heavens, and where, amid scenery of the wildest desolation, stand some of the loftiest mountain-peaks in the world. Here, amid crags and precipices of the most appalling description, lives and dies the majestic spiral-horned markhor (*Capra Falconeri*), in the pursuit of which animal I experienced some of the most exciting and arduous stalking it has ever been my lot to enjoy. Thus it came about that after some weeks' most successful hunting, during which I had secured half a dozen fine pairs of the much-coveted horns, I found myself cut off from the outer world by huge barriers of mountains whose snowbound passes loomed in grim defiance between me and civilization, making my journey the anxious and dangerous one it was.

There was a good deal to occupy my attention before starting, which caused me to decide to halt at the village of Boonji, on the Indus, for a couple of days, where I might make all the arrangements possible for the journey. There were, in addition to a bungalow

occupied by two officers attached to the Gilgit agency, by whom I was most hospitably entertained, a post and telegraph office, and a *tesildah* or native official, who I knew would be most useful in assisting me to collect coolies for transport. The whole of one morning was devoted to overhauling the baggage and dispensing with as much of it as was possible, for I foresaw that one of my chief difficulties would be likely to arise in connection with transport arrangements. Winter had set in earnest, with its usual complement of driving snowstorms, biting frosts and crushing avalanches; and vague rumors of the hardships suffered by those who ventured across the lonely passes of the mountains, of frost-bite, and even of the death from exhaustion and exposure of certain natives who had recently essayed a journey across the mountains, were afloat and obtrusively prominent whenever I broached the subject of transport among the natives. Such rumors were doubtless exaggerated with a view to increasing the rate of hire; but that they were to a certain extent well grounded was obvious when a sorry-looking individual approached me to beg for alms, and showed me in the place of hands a wretched withered stump, the result, he assured me, of frost-bite.

Luckily there was no necessity to take tents, there being huts at intervals the whole way; and having discarded all impediments of the kind that I had with me, in addition to all superfluous ammunition and stores, I collected what remained and arranged it into very light loads, to find that I should require at the least eighteen coolies. This may seem a large number to take all that one requires when travelling light; but it must be remembered that though fifty or sixty pounds is an average load for a coolie under ordinary conditions, he can hardly be

expected to carry more than thirty or forty when wading through deep dry snow, if you hope to see him at the end of the day's march; and besides food for the whole party, the horns required three men, the rifles and guns two more, leaving only thirteen for everything else, including stores, bedding and the small amount of camp furniture I allowed myself.

When everything was ready, plenty of coolies were found willing to go from Boonji, especially when they realized that they were only expected to accompany me as far as Astor, a village a few marches distant, where I was to obtain fresh transport. Among them were three Kashmiris, who had brought grass rope for making the sandal usually worn by the sportsman in the Himalayas, from the fertile valley of Kashmir, earlier in the season, and were only too glad of the opportunity thus afforded of returning to their homes, by volunteering to accompany me and carry loads the whole way. This was satisfactory, and on the 12th of January, 1900, I started them off in charge of my head servant, Ram Pershad—a strong, thick-set, bow-legged Hindu from Meerut, who had been with me throughout my wanderings, and of whose excellence as a camp servant I cannot speak too highly—while I remained to spend a last evening with my friends of the Boonji bungalow, and to enjoy once more, before leaving them behind, the many little trifles which go to make life comfortable—well-cooked food, pleasant company, an easy-chair, dry clothes, a warm room and a score of others, insignificant in themselves, perhaps, and accepted as a matter of course in the ordinary routine of every day life, but of sufficient importance to make their absence felt and their presence appreciated by any one who may chance to have been in the often unpleasant position of



having to do without them. It was, consequently, the 13th of January, 1900, when I left the barren sandy valley of the Indus and began the ascent of the mountain-chain before me. In front Nanga Parbat (26,620 feet) frowned down like a giant sentinel on the surrounding country; behind, as far as the eye could see, rose tier upon tier of stupendous mountain-peaks, standing out on the eaves of the "roof of the world," great Haramash (24,270 feet), Deobunni (21,154 feet), and Rakapooshi (25,550 feet).

My way lay up the valley of the Astor river; but for several miles after leaving the junction of the Astor and the Indus, the winding mountain-path zigzagged backwards and forwards up the precipitous sides of the Hattoo Pir, till the river appeared but a tiny thread of silver below me.

I was able to ride this first day's journey, along the narrow mountain-path overhanging sheer precipices of many hundred feet, and by evening reached the small village of Dashkin, a distance of about thirty miles, and caught up the coolies with my baggage, whom I had started off the day before. Henceforth it would be a case of walking, or rather of wading, through interminable stretches of deep, powdery snow, in which no sign of road or pathway would be visible beyond the tracks of the hardy post-runners, who for political reasons are employed in keeping up communication as regularly as possible with our distant frontier outposts.

The morning of the 14th broke cold and stormy, and I had not gone far before it came on to snow, great masses of cloud rolling down the mountains and obscuring everything from view with a gray pall of damp, chilling fog. The village of Astor—the largest village in these parts—was only fourteen miles distant, and I had no difficulty in reaching it soon after midday, the

coolies turning up by evening. All that night and most of the next day snow fell with persistent monotony, and I was obliged to remain where I was, with no better occupation to distract my thoughts from pondering on the probable state of the passes ahead than watching the great fleecy snow-flakes fall softly, but with steady persistence to earth.

Still, I was better off than I might have been, for the hut here had been for some time in occupation by the European engineer in charge of the road to Gilgit, whose duties necessitated his living in the district; and though he himself was away at the time, I found the pleasing difference that exists between a furnished abode that has recently been lived in and an unfurnished one that has not, and made the most of such comfort as was to be derived from my surroundings.

I had made myself quite at home, and was sitting comfortably in a capacious arm-chair in front of a cheerful blaze, when I was startled out of a reverie by a fearful bang at the door, which promptly opened inwards to admit a most unlooked-for form of disturbance in the shape of two wild-looking wolves, who tore round the room, much to my perturbation, in an apparent state of frenzy, leaping on to the bed and knocking over the furniture, till reduced to a more tranquil state by the appearance in the doorway of an individual who performed the offices of cook, and was left in charge when his master was away. He apologized for having neglected to tie up his charges, and expressed a hope that I had been in no way inconvenienced by their somewhat unceremonious entry, assuring me at the same time that they were perfectly quiet and gentlemanly behaved creatures. The description struck me as being just a little tame, especially when, a short time afterwards, I ob-

served the rabid and unfeeling way in which they tore up and devoured certain portions of raw meat which constituted their daily feed, and wondered if the day might not chance to come when they might so far forget themselves as to tear up in like manner things other than they were meant to. Truly solitude induces one to make strange companions, but I felt that I would put up with a long spell of solitude before I took to wolves as household pets. Dogs are excellent company; cats, and even bears, one might become much attached to, but wolves! Well, there is no accounting for tastes.

The 16th showed an improvement, and in the morning the headman of the district, who had been warned of my probable arrival from Boonji, came round and informed me that he had collected coolies who would accompany me as far as Goorais, the next village of any appreciable size, and assured me that he had picked his men and chosen as strong and hardy a lot as was available. This I had made a great point of, as carrying loads over snow, especially at great altitudes, is very far from child's play; and though life in this part of the world may be cheap (as one might be led to suppose from the tale of the old woman's fond relations, who after due deliberation approached the unfortunate sportsman who had killed her and gravely informed him that they were decided that her value was four annas!—so at least runs the story), yet I had no wish to have any one's death on my hands, if by any reasonable precaution I could possibly avoid it.

When I had seen the men and started them loading up, I dismissed the coolies from Boonji—Baltis for the most part from the borders of Baltistan—and prepared to start on the next march. I left the matter of pay to be decided by the *tesildah* of Astor, who

proposed to the men before they started that they should receive six annas—equivalent to sixpence—per man for the first march, which was by way of being an easy one, and double that sum for the succeeding marches, an arrangement which they willingly agreed to. The ordinary pay for an average day's march in most parts of the Himalayas is four annas (fourpence) per coolie; but in the Gilgit agency, which is barren and destitute to a degree, food is a serious consideration, and six annas a day is the recognized tariff, two annas of which is deducted if the hirer supplies his men with food. This he is practically bound to do, as when away from his home in these barren districts there is no place where the native can obtain it for himself, and an order has to be procured from the political agent at Gilgit for permission to buy flour from the various Government storehouses which are kept at intervals along the road through the agency, and which are supplied by a continual transport service through the short summer when the passes are open, from the abundant crops of the Kashmir valley. The necessity of preventing the stores from being depleted is obvious, and is one of the chief reasons why the country is closed to travellers and sportsmen, who are bound to have with them a considerable following of servants and coolies, all of whom require to be fed.

At the end of the day's march we halted at a hut known as Godhal, about sixteen miles distant, and here spent the night. The height of Astor, which I had left in the morning, is about 7,800 feet, or a rise of, roughly speaking, 4,000 feet from the Indus, where I had left it, and in front loomed the dreaded Boorzil Pass, with an ascent of close on another 6,000 feet. From autumn well on into June this pass is closed by snow, and the storms that sweep down on it during the winter

carry all before it with an overwhelming fury.

The next morning as no snow was actually falling, we continued our march, but the mountains all round were lost in mist, and the appearance of the sky was far from promising. As we went on along a gradual ascent the snow underfoot became deeper, till by the time we reached the Chillum Chauki, a hut near the foot of the Boorzil Pass, and our shelter for the night, it lay with an average depth of several feet. The distance of the march was supposed to be about sixteen miles, and I reached the hut at three o'clock; but hour after hour went by with no sign of any coolies with the baggage. At 7.30 Ram Pershad turned up, saying that the coolies made very slow progress through the snow, and were still a long way off, which was anything but comforting, as it was intensely cold and we had no food. About 10.30 a coolie, who had come on ahead of the rest, arrived with a portion of a sheep and some eggs, and Ram Pershad having managed, as only a child of the desert knows how, to cook them without apparatus of any kind, I dined! Soon after one or two more coolies struggled in, and at 11.15 a man with my bedding. I was not very long in getting into it, and immediately fell asleep. The rest of the coolies arrived about midnight. The cold during the night was severe, and all the more felt owing to its being very damp and raw, the thermometer registering 26° of frost in an atmosphere that was heavy with cloud and fog.

At seven o'clock on the morning of the 18th I saw my coolies off, after dividing up the baggage so as to give every man a very light load, and then set off myself. As the sun rose in the heavens the clouds and fog dispersed, and before long we found ourselves tramping along over a huge stretch of dazzling whiteness, with lofty snow-

bound peaks on either side of us, under an absolutely cloudless sky. By ten o'clock we reached the post-runner's hut of Sirdar Khoti, at the foot of the pass, and rested a few minutes before starting on the final ascent. As we left this small sign of human habitation behind us, and became lost in vast wastes of the wildest desolation, the dead silence, broken only by the labored breathing of myself and my followers as we slowly forced our way through the deep dry snow, combined with the utter absence of life, filled one with a feeling akin to awe, and forced upon one the smallness and impotence of man amid the stupendous monuments of nature.

In spite of the sun the cold was intense, and every short halt proved how necessary were all the precautions we had taken against frost-bite. Between one and two o'clock we reached the summit of the pass, and were all glad enough for a short rest in the uninhabited hut which stands upon the top. We could not afford to waste much time however, for five miles still lay between us and the nearest post-runner's hut, and after a short breathing-space we began the descent, another two and a half hours' scrambling, falling and sliding bringing us to the post-runner's hut, Boorzil Chauki.

The relief of getting into the shade of a room after the fierce glare of the sun on the snow all day was immense; but the cold was very trying, and in spite of a huge wood-fire my thermometer rapidly sank to 8° Fahr. on the window-sill, the temperature in the room itself being only a few degrees higher. As the sun sank behind the mountains and the stars began to twinkle and shine with extraordinary brilliance, the scene was one which could not fail to impress the most prosaic of mortals. In the dry, rarefied air everything stood out with wonderful sharpness of outline, and as the

great orb of the full moon rose clear and chill-looking, she seemed to look down in approval upon the cold, frost-bound earth beneath her. The thermometer dropped rapidly to zero, but never registered more than 32° during the night, though the cold was probably much greater beyond the radius of the huge fire which I kept up, and in the morning when I started again at nine o'clock it was still freezing 28°. I experienced many trivial annoyances, both on this and other occasions during the march, owing to the low temperature in the interior of the huts; for everything capable of freezing did so, and obstinately refused to be thawed. For several days I was unable to write in anything but pencil, for my ink, though the bottle was quite full, was reduced to a state of solidity, in which state it remained till I reached a warmer clime. It was also annoying to find on taking up the milk-jug at breakfast, that it was covered with ice, which had to be melted whenever one wished to pour out some milk, for it had only to stand on the table for a few seconds to be reduced to the state of a solid again.

We were blessed with another fine day, and the march of fourteen miles to the next hut passed off uneventfully, except for a fright we got shortly before the end of the day's march. We were walking across a steep snow-slide, cutting steps as we went, when there was a sudden sharp sound, resembling the noise made by ice cracking, only very much louder, and my Kashmiris with one accord took to their legs and fled. It was nothing much after all, but served to show how easily an avalanche may be started. For some reason or other the top layer of snow on the steep snow-slide in front of us had given way, and a few cartloads had crashed down, leaving a ploughed-up patch in the otherwise unbroken surface. All the coolies got in in good

time, and I began to congratulate myself on the successful way in which I was getting over my arduous journey; but the smooth course of events was destined to come to an abrupt termination, and before many hours were over the difficulties and hardships of the undertaking were brought home to me in a very realistic manner.

With a suddenness characteristic of the elements in these parts, the whole aspect of the heavens changed in an incredibly short time, and during the night the wind, which for the last two days had been conspicuous for its absence, blew a perfect hurricane. With the advent of dawn it died away, but had done its work; for in place of the clear, blue sky, dense masses of ugly cloud rolled ominously over all the surrounding scene, and by the time we started at 9 A.M. snow was falling steadily, and so thickly that it was impossible to see more than a few yards in any direction. Under the circumstances, I strongly urged the advisability of staying where we were; but my guide maintained that we could reach the next hut, a distance of twelve miles, and concluding that he must know best I gave way. Accompanied by him and another Kashmiri, I led the way, followed by the coolies with the baggage. The snow, which was every minute becoming deeper, was dry and powdery, and the going consequently most arduous. It is no doubt a very sound rule never to part from one's baggage, and before very long I had reason and leisure to ponder on the excellence of such a practice; but the coolies made wretchedly slow progress, and in a rash moment, and under pressure of the strong temptation to reach shelter and get out of the swirling, blinding snow as soon as possible, I left them with an escort of a couple of local men to bring them along, and pressed on with the two Kashmiris.

On we went, silent and laboring, all our energy concentrated in getting one foot in front of the other, while the snow fell softly and caressingly to earth, shrouding everything in a thick, white pall, till, for all I knew, we might have been going forwards, or backwards, or even round in a circle. For four long hours we forced our way onward without a halt, except for an occasional stop to get our breath, till at last I insisted on a short rest to refresh ourselves with the cold food we had with us. Half an hour I allowed for this, and then on again. Slowly we forced our way through the deep, treacherous snow, coming every now and then across avalanches newly fallen, which caused us to redouble our vigilance on dangerous places.

At last, just as dark was falling, we staggered into the bare hut that was to afford us shelter for the night. Luckily we found a supply of firewood, and after some trouble, owing to the dampness of the wood and the want of draught up the chimney, I induced a fire to burn. This, however, proved to be a new source of discomfort, as the chimney absolutely refused to admit of any smoke going up it, and in a very short time the room was filled with the choking, pungent smoke peculiar to damp wood-fires. After this the only conditions on which I was able to have a fire were the window and door wide open, and even then it was hardly bearable. Outside a gale had sprung up, and with the snow, which never ceased falling, created a veritable blizzard. About two feet of fresh snow had fallen since the morning, and the night promised to double it.

Having ransacked the hut, I found the furniture to consist of a couple of wooden chairs, a wooden table and an old kerosene-oil tin. I luckily had some tea in my pocket, which I speedily turned to account by boiling it in the oil-tin (!), after having first re-

duced some snow to water, and, in spite of the flavor of smoke and oil, found it most comforting.

Night settled down with a darkness that could almost be felt, and as the hours passed by, and none of the coolies or servants turned up, a terrible and sickening fear laid hold of me and refused to be shaken off; for well I knew the danger of the silent, merciless avalanche. Only a few days before a European telegraph-signaller, accompanied by a party of seven or eight natives, who had been up to repair the telegraph line, which was suffering from one of the chronic winter interruptions to which it is liable, had been swept away without a warning, on a portion of the very ground which I had so lately traversed. An exclamation, a sudden cry, a blinding flash of dazzling whiteness, as the mountain-side gave way, sweeping down upon its victims, swift, silent, inexorable, and all was over. A single individual a little apart from the rest, after being buried to the head on the extreme edge of the avalanche, was spared to tell the harrowing tale. The fear of death is born in us, and he who can honestly say that he fears not death is more than human; yet to look death in the face, when circumstances force it before our vision, is to be moved by something besides our natural feelings of terror. In the realization of the nearness of the angel of death, the distorted picture of life we are so accustomed to see by the light of our daily lives is suddenly straightened; the greater issues at stake assume their true proportion, and the trivialities to which we are wont to attach so much importance as too often to fill up the whole of the picture, for once fall back into the proper focus, and we see things as they are. I well remember, and hope I shall never forget, the feelings with which I was filled as I stood on the ploughed-up mass of snow from



which had but lately been dug the bodies of the victims of the avalanche, and in that moment knew that it was in greater hands than man's that the threads of our lives were held, and that, were our fate to be the same which had so lately overtaken others on this very spot, or were we to be guided safely to the end of our journey, an omniscient Providence ordereth all things for the best.

Yet as darkness, which seemed tangible, came down upon the earth and cut me off from my men still battling with the elements, and still, for aught I knew, far from shelter, fear for them, far greater than any I had ever felt for myself, took hold of me, and fight against it as I would, overwhelmed me with an anxiety that made the night the most terrible I have ever spent. By 10 P.M. I gave up all hope of seeing them, at any rate before morning, and took counsel with myself as to the best way of whiling away the weary hours till daylight. There was little enough choice when I came to consider it. Here I was in a cheerless hut, with no food or blankets, damp, steamy clothes, and in darkness except for the fitful flame of the smoky fire. I lay down on the hard wooden floor in front of the fire, and, in spite of physical discomfort and anxiety, worn out as I was by the toll of the day, dropped off every now and then into a troubled sleep.

Slowly the long winter night wore on, and when daylight at length began to make the darkness visible, it was only to show that snow was falling with the same persistent monotony. I was stiff and cramped after the long night in wet clothes on the hard wooden floor, my eyes aching and bloodshot, and my voice hoarse from the stifling, pungent smoke; and with a hungry, wolfish look, if my expression in any way corresponded to my feelings. I told one of the Kashmiris he must get

to a village a short distance off and procure food at all costs, and also try and collect men to form a search party, though I doubted his being able to do this while the storm raged. He went off and I did not see him again for many hours; but imagine my joy when a couple of hours later I made out a small black speck on the general monochrome of white, which slowly, very slowly, got nearer and more distinct, resolving itself finally into a straggling line of woe-begone, battered-looking men—a portion of my coolies. When they reached me, and I had had some food, which I was much in need of, I heard their tale. They had struggled on well into the night, when utterly exhausted and worn out, they had reached a small village, where they had got shelter. Three of them had been caught by a small avalanche, but had mercifully been extricated by the rest before it was too late. Six of them were still out, and these latter did not turn up for four days.

A little farther back on the track over which we had just come—though this I did not learn till later, when the terrors of the mountains were behind me—a post-runner met his fate, lost in the heart of the great lonely mountains, a single unit in the great sea of humanity, who would, when the mail did not turn up, form the subject of an official document, in which he would be described as "Missing."

For three more days and nights the storm raged with unabated violence, while I was a prisoner in the wretched, cheerless hut, unable to have even a fire, except for a few minutes at a time, when my feet and hands became so numb with cold as to be unbearable.

At last, on the 24th, the mist rolled up like a curtain, revealing once more the surrounding objects; the storm-clouds parted, and the sun peeped through, cheering us once more with the warmth of his rays. I took the

precaution of remaining where I was for the day, as my guide warned me that the first day of bright sun after a storm was the most dangerous, as then the newly fallen snow came down in great avalanches from the precipitous cliffs, and woe betide the man who is caught by one of these.

On the 25th I started before daylight, in the hope of getting to the end of the day's march early, in case the sun should come out hot during the day, and cause the snow to come down the precipitous sides of the valley through which my route lay. The going was fearful, for we sank deep at every step, and as the day dawned, the sky, which had been clear, became overcast, and at midday snow began to fall. After going about ten miles, our way led us uphill again, towards the foot of the pass known as the Raj Diangan, and I have seldom experienced more unpleasant ground to get over than I did for the next few miles. It seemed we were walking over a water-channel filled with great boulders, though, owing to the depth of the snow, we appeared to be walking on level ground, till, with a sudden shock, one found oneself in a hole between the rocks, concealed by the treacherous snow. This continued for several miles, and by the time I reached the hut Gural, a distance of fifteen miles in all, which had taken us from before daylight to late in the afternoon, I was absolutely exhausted. A few days before, during the recent storm, an avalanche had come down close to the hut, burying a small stream, the water-supply of the place, and I found a well many feet deep in the snow just completed by the post-runners.

As darkness came down with no diminution of the snow-storm, and no coolies turned up, I looked forward to another night such as I had spent on the twentieth, and had settled down on the floor and was half asleep, when

I was roused by shouts outside, and in a few minutes a coolie burst into the hut. He told me that the rest had been unable to reach me, but were safe in a small village a couple of miles off. He himself and one other had struggled on with food and blankets, but his companion had given up, and he had lost him in the dark. This news was so far satisfactory in that I knew that the coolies, all excepting one, were safe; and, fortified with the cold food and blankets which the man had brought, I managed to pass a better night than might have been expected.

With day snow ceased falling, and as I was gazing anxiously over the huge, undulating snow-fields, a sorry spectacle met my eye. Slowly, and with halting step a gaunt figure, with a pinched and starved appearance, approached us. On his reaching us I noticed something which made me put out my hand and feel him. His clothes were hard and stiff as boards. The men stood staring and uttering exclamations in an idiotic, imbecile sort of way, till I made them understand that the man was at once to be thawed, when they set to work with a will, pommelling and rubbing him till the wretched individual cried out in pain. It was the coolie who had started with the man who had brought me food and bedding the night before. How he had lived through the night I cannot imagine, for sure enough he had spent it in the snow, and his escape to tell the tale seemed almost a miracle.

Shortly afterwards the remainder of the coolies arrived, and after a few minutes for them to rest, we started on the ascent to the Raj Diangan. I took the precaution, after recent experiences, of bringing a couple of strong men along with me, carrying food and blankets; for I feared that the coolies, who seemed exhausted, might not reach the hut at Teagbal by night. The day

was fine, and in spite of the severe labor of scaling the pass through the deep snow, the spirits of all were higher than they had been for many days; for we were within view of the end of our hardships, and the danger to which we had been daily exposed, of being swept away silently and without warning by the deadly avalanche, would be over on our arrival at the summit of the pass. Hour after hour I forced myself to go on, till I felt as if I must sink down and rest in the soft enticing snow; but the danger was too great, and I at length reached the log-hut over the summit of the pass just as night was falling. Most of the coolies got in at different hours of the night; but a few remained in the post-runner's shanty a few miles off till the next day.

As I left Tragbad on the 27th, and  
Blackwood's Magazine.

saw the huge expanse of the Vale of Kashmir spread out like a map beneath me, and knew that I had at length reached the edge of the great mountain-chain across which I had been marching, I was filled with a feeling of profound relief and thankfulness.

A few miles straight down the mountain-side, through deep snow and over slippery patches of ice, and I found myself on the banks of the Woollar Lake, where a Kashmir boat, known as a doonga, was awaiting me; and a few hours later, my servants and baggage having been got on board, we started for Srinagar. Two and a half days' paddling through the Woollar Lake and up the river Jhelum brought us to the capital and civilization, and my journey across the Himalyas was at an end.

## SYBIL'S SIN.

### IN FOUR PARTS.—PART IV.

"Let us sit down, Candy—my sweet Candy—and you shall tell me all about it. I've had a deal of nerve taken out of me."

With these words, Burkitt Barker drew Candida back to her seat. He nestled against her. "This is nice!" he whispered. His arm was around her waist.

Candida shelved her own troubles for the time.

"But you will soon be well now?" she asked faintly, yet with earnestness.

"Rather—now! I'm better every time your heart beats so near to mine. What the plague do you mean by hiding yourself, Candy? Oh! but there's that chap's idiotic tale about something or other. Begin at the beginning

and tell me everything. Who is he, that he should know more about you than I do, I'd like to know?"

Candida's breathing was very rapid. The worst possible had come upon her; and it was so cruelly akin to the best possible!

"What can I do? What ought I to do?" she asked herself, with a sob in her throat.

"Put up your veil, child, and answer my questions."

"No," she said. "I must not—that is, I cannot." Then her agony discovered its own vent. "Oh, why did you find me out?" she cried. "Mr. Halloway might have spared me this. I could have borne it all without you. Now I—I wish I could die at once. If only I could!"

Burkitt Barker's arm relaxed its

pressure, to close around her the tighter the next moment.

"Who's masquerading—you or I?" he asked in wonder.

Candida did not answer.

"Come, child," he said, with some sternness. "I want to understand this mystery. I've the right to know. You came out for my sake—didn't you?"

"Oh, no! no!"

"No? That's bad. You don't mean to say— Candy, my dear, when did you take to fibbing?"

"I did not think I should see you," she said.

"All right. That's good enough for me. You don't really suppose I've studied your blessed little face and mind day after day for months without being able to construe you pretty straight by this time?"

"I came out for both our sakes. I wanted to try and forget you."

She tried to hope that these words would be plain enough.

"So?" said he, with a faint laugh. "Fib number two!"

"No, Burkitt, it is the truth. I swear it!" she exclaimed.

"Oh, indeed! You swear it? After that, Candy, I can't expect to get much truth out of you in your present depraved state of mind. And this is the young lady who had the audacity to undertake to teach my little nipper of a sister morals and geography! Candy, I'm ashamed of you. Still it helps to pass the time. Why won't you unvell to me?"

"I—daren't!" she whispered.

"So I should think. I'm delighted, you sweet sinner, that you have some proper feeling left in you. Candy, drop all this farcing and out with it. What does that fellow mean by saying there's some trouble about you and some diamonds?"

Then, with a great gasp, Candida stepped boldly again on the new road which she had chosen, and from which

she had diverged, in faintest fancy, just for a pace or two.

She untwined Burkitt's fingers from her waist. It was hard and difficult, but she did it. Her silence aided her in depressing him.

"I must go," she stammered, rising. "I cannot bear it."

He held on to her other arm, trying to keep her down.

"For the matter of that," he said bitterly, "it's about as much as I can bear too. I'm under doctor's orders not to be agitated, and here you— Don't you really care for me, Candy?"

For answer she sobbed again, and, stooping over him, drew his loosened coat about his neck, and buttoned it.

"Good-night, dear," she whispered brokenly. "And think the best possible of me."

Then she glided from him and to her cabin, the door of which she shut with a feeling that she thus severed herself from the last ray of sunshine in her life.

As for Burkitt Barker, he had much ado to keep that enraged and weakened heart of his from playing the craven with him as once before at Belmont. Wounds then and wounds now. But the first wounds were, in themselves, a sort of wild joy to him. These others were terrible—goads to desperation.

He tottered in search of Mr. Holloway, about whose actual identity he had felt no interest until that day. Mr. Holloway was just leaving the smoke-room to lock up Candida for the night, if it so happened that the romantic meeting aft was at an end. Burkitt surprised him in the act of turning the key. Candida had wished him "good-night" in a tone that forbade conversation.

This new discovery for the moment astonished Burkitt out of his wrath.

"Is that *her* cabin?" he asked. The

doctor had shown casual reticence about their neighbor.

"It is, sir," replied the detective. "So you and she *were* acquaintances—pleasurable acquaintances, I may venture to hope?"

"Come this way. I want to speak to you."

Burkitt Barker's manner piqued Mr. Holloway. There was not a shred of gratitude in it for the favor (as it might well be regarded) which Mr. Holloway had of his own free-will and kindness conferred upon him.

They went to the ship's side together. A lighthouse was flashing forth its message from the home-land; but Burkitt did not give it a thought.

"Now, then, sir," he began, "what is the meaning of it all?"

Mr. Holloway chuckled in protest.

"Tell me now," said he. "If that's your way, I'll refer you to the Chief-Constable of Hampington. You're not *my* superior officer, at all events. I wish you a good night."

Burkitt Barker received a rating from the doctor for his temperature by-and-by; and the rating was followed by serious warnings when it seemed evident that something had happened which made the invalid completely indifferent about his pulse, his temperature and everything else.

Neither Burkitt nor Candida slept much that night. The thoughts of each of them went beyond the feeble barrier that separated them and stayed there.

However, in the morning, though quite ill again, Burkitt made another effort to straighten the mystery. He defied Mr. Holloway and all the thunder and lightning of the law, and before Mr. Holloway's own face knocked at Candida's door.

"I want you," he said.

"Please don't. Please go away," came back the half-choked reply.

"Not till I've seen you!" said Burkitt.

Mr. Holloway interposed with the request that there might be no scenes. Two or three passengers, being surfeited with the pleasure of the English coast-line, now near at hand, had pricked up their ears in the gangway.

"You and your scenes be hanged! I mean to see Miss Cope."

"Certainly, if she is willing; but if not, I shall ask the captain to interfere," said Mr. Holloway.

"I'm not going till I've seen you," said Burkitt, vouchsafing no answer other than a look at the detective.

Then the door opened. Seeing Candida's face, Mr. Holloway turned his back.

"Well?" said Burkitt, tenderly. He too was awed by Candida's white, drawn face.

"What do you want?" she asked, but just audibly.

"I want you to be sensible, Candy," said he. "We shall be landing in the afternoon."

But she shook her head.

"Don't!" she whispered. "Please don't. Go ashore and—forget me. Indeed, there is nothing more for me to say. You make it so hard for me!"

"Is that all?"

"That is all."

Then Burkitt Barker turned away, and Candida's door closed again.

"It's just as well I'm not myself," said Burkitt furiously to Mr. Holloway as he passed him by; "else I'd find it hard to keep my fingers from your throat."

"That," murmured Mr. Holloway, "comes of playing Good Samaritan in an amateur sort of way. Well, it just serves me right. I'll be thankful when I hand over this job to others it may suit better than it suits me."

On towards the Needles and past them up the Solent, sped the good ship *Duke*, in "Queen's weather" this day. The blue sky and the crisp air braced many hearts on board which were in



sorry need of bracing; but Candida was not among these happier ones. She sat in the first officer's cabin and waited dumbly for what Fate had next in store for her.

"Look here," said Burkitt to Mr. Holloway as the *Duke* steamed straight towards the quay, "I am not going to leave you a free hand even yet. Kindly understand it."

"That," said Mr. Holloway, "remains to be seen."

He was already eyeing the crowd assembled on the quay, and hoping the Chief-Constable of Hampington might be among them to ease him in part of his responsibility. The wire had been sent off all right, and some one at all events might be expected. Meanwhile there was no particular need to hurry off the *Duke*. Hampington could not be reached that night.

Shouts of welcome, the fluttering of handkerchiefs, the music of a regimental band (for others about to sail), and the lively commands of the *Duke's* captain did what they could to distract Burkitt Barker from his own especial trouble. So did something else. In the name of common sense, what was his aged grandmother thinking about that she also should be part of this welcoming crowd? There was no mistaking her. Sybil too was there, with excited eyes but not much of a smile. The child waved a handkerchief, but didn't seem as if she enjoyed doing it.

Burkitt leaned over the side and nodded and smiled, and felt that he was a bit of a brute in not warming to the core at the prospect of the reunion, safe and fairly sound, with his nearest relatives. But he did not attempt to dissemble. The blot on his bliss was much too broad for that.

A few minutes more and the embracing and kissing were through.

Lady Barker had sighed, "Oh, my boy! my poor dear boy, how you are changed!"

Sybil had kissed him stonily.

Burkitt thought to himself "If I am changed I wonder what they are!"

Then Lady Barker's eyes wandered past him, and so did Sybil's. The child was nervously excited. She was the first to spring on the subject that was in all their hearts.

"Isn't she with you, Burkitt?" she asked.

"She? What she?"

"Miss Cope! Oh, Burkitt, where is she? I *have* been a beast, and I do so want her to forgive me."

Sybil's cheeks flamed now.

"Yes," added Lady Barker wearily, "it is a miserable business. Surely you do not need to be told about it, Burkitt? Is she not on board?"

Burkitt passed a trembling hand over his brow.

"Oh," said he, "so you are in the secret? Well, look here, gran, if you don't mind, I should like to know this very instant what it all means. I was all but mad last night."

Sybil began to cry.

"Let *me*, granny," she whispered. "She wrote me such a beautiful letter, Burkitt, forgiving me, you know; but I'd repented before I got it—hadn't I, granny?"

"Sybil has been very wicked—very terribly wicked, indeed," said Lady Barker. "I do not know what reparation it is in our power to offer poor Can—poor Miss Cope."

"I'm still in Egyptian darkness," said Burkitt impatiently, staring first at his little sister and then at his grandmother.

The latter seemed at length to guess what was wanted.

"Has she not told you about—my diamonds?" she asked in a low voice.

"Not a word. There's a beggar in—in charge of her. He mentioned diamonds, but Candida not a word."

"Oh, granny!" exclaimed Sybil, clasping her hands, "she meant that letter;

I know she did. She'd have gone to prison, and all that, and not confessed a thing if I hadn't done it for her. Oh, I am glad I saved her! I stole granny's best diamonds, Burkitt; and when Miss Cope wasn't looking I hid 'em in her box. That wasn't all. I told the most awful tale about her you could ever imagine. I said I saw her creep in in the night. That was when she'd left us three days. I wouldn't confess anything at first. I *have* been a wicked girl, and no mistake!"

But for the tears in her eyes Burkitt might have supposed she was rather proud of herself. The tears and the vigorous sob into her handkerchief that followed made a difference.

"Well," said Burkitt, "this beats all. She's not romancing, I suppose?"

Lady Barker shook her head.

Little Sybil herself answered him.

"Whatever I am, I *hope* I am not a liar!" she exclaimed.

"You're something a good deal worse, then," said Burkitt. "I'm going right back to fetch her."

He was returning to the steamer when his grandmother stopped him.

"Perhaps we had better wait," she said. "Major Day is here on purpose. He came down from Hampington with us. Is he not yonder? And—"

Burkitt also now saw the Hampington Chief-Constable. He left his grandmother. Major Day and Candida were coming ashore together, and Mr. Halloway was behind, looking very jaunty. Candida still wore her veil.

Burkitt greeted the Chief-Constable with a short nod, a smile and the words, vibrating with controlled passion:

"Excuse me, Day; Miss Cope is in my hands; and I'll take care she never leaves them again!"

Major Day seemed a little surprised, but released his arm from Candida's. He had felt her quiver; but that of course was nothing. Such very strong

and significant language was enough to disturb any girl.

"I am at Miss Cope's disposal," he said blandly.

"That's all right; but she's not at yours, old chap," said Burkitt. Then, as he took the Chief-Constable's place, he whispered to Candida, in a tone that brought tears of a new kind to her eyes, "Come along, dear, and let them beg your pardon, and get it over. They'll get *your* pardon fast enough; but mine is another matter."

Mr. Halloway rubbed his hands gleefully.

"Never was better pleased in *my* life, sir!" he confided to Major Day.

"Yes, it's a rum business!" this gentleman assented. "You can give me the stones as soon as you like."

"Oh, Burkitt," whispered Candida, "must I go to them? I—I don't want them to beg my pardon or anything. I'm only tired and want to be alone!"

Burkitt made a sound that might, without indelicacy, be described as a snort.

"You're my property," he said. "Afterwards—but it's all right, dear one. I'll cut it short."

There was something pathetic in its way in old Lady Barker's open-armed welcome when it came. She took the girl to her bosom as if she were her own child, and purred over her.

Sybil did better still. This was a preconceived plan, which much recommended itself to her dramatic small mind. Even while Candida was in her grandmother's arms, she spread her handkerchief on the quay pavement, and before the others could guess at her intention she was on her knees.

"Miss Cope, dear Miss Cope!" she cried, with appealing, bright eyes, "please say you forgive me."

"Get up, you little owl!" said Burkitt.

"Sybil!" exclaimed Lady Barker,

suddenly giving Candida her freedom.  
"How dare you?"

"I'm not a little owl, and I'll not get up till Miss Cope tells me. I don't care about people staring either.—Miss Cope!"

Candida stooped down and lifted her.

"Won't you kiss me, dear?" she said faintly. "Of course I forgive you."

Then the little girl sprang into her arms, and shed kisses and tears on Candida's cheeks until her brother pulled her away.

"After that," said Burkitt, "I think it's about time to clear out. But just one word, gran, while we're at it. You said something just now about reparation. There's no need to think of it. I'm going to marry Candida as soon as possible. Our recent pack of troubles

is only a family affair, you see. I'm going to marry her in spite of herself, of you and the whole world. That's all. Now let's get off to the hotel."

Lady Barker said nothing in comment on these great words; to tell the truth, she was prepared for some such communication. But to Sybil they were as interesting as a comet.

"Oh, I *am* glad!" she exclaimed impetuously. "I've prayed such a lot against jealousy for days and days, and I'm not a bit jealous now. *Do* let me carry your bag, dear!"

Burkitt gave it into her hands, though Candida was not quite so willing to oblige.

"Take it, you imp!" he said, with a laugh.

*Charles Edwardes.*

*Chambers's Journal.*

---

## THE FIRST LINE.

21st OCTOBER, 1805.

This day is full of glorious victory.

Echoes of conquest whisper from afar

In every wave of the remembering sea.

Dear England! hath thy crown a richer star

Than this brave jewel, Nelson's Trafalgar?

Or hast thou in thy missal lovelier name

Than his who stricken in the ebb of war

Pillowed his head on thine unsullied fame

And smiled into Death's eyes from out the smoke and flame?

Let the sea speak to thee, the jealous sea

Whose scorn of weakness is the scourge of fears,

Let her surge be a trumpet unto thee,

Her waves a memory ringing in thine ears.

Heed her, or thou shalt place sad dust with tears,

No laurel, on thy proud cathedral graves;

Heed her, or in tradition-robbing years

Thy trampled children looking o'er the waves

On this great day shall curse the sires who made them slaves.

Shall the shrugged shoulder speak a nation's mind  
 When at their post the easy wardens sleep?  
 Shall we be blind because our chiefs are blind?  
 And keep no count because no count they keep?  
 Nay! by the sacred blood that won the deep,  
 And by the words on our dead Nelson's lips,  
 We will not hold our British birthright cheap,  
 Assured our star shall never know eclipse  
 While British seamen man their country's honest ships.

If Alfred bullded, canst not thou maintain?  
 If Nelson conquered, canst not thou make sure?  
 Are all thy riches, all thy splendor vain,  
 Thy realms a Paphian's glittering furniture?  
 Thine is wide empery—Wilt thou abjure  
 The open ocean, empire's silver key?  
 Perish the drunken thought! Be strong, endure;  
 Thou must be England, and thou must be free,  
 And while this England stands, England's must be the sea.

Therefore above the voices of the mart  
 Hear the sea's thunder in the narrow street;  
 Is thy head London?—then, behold, thy heart  
 Is ocean. Let the pulse of England beat  
 Thro' all the seas in England's matchless Fleet!  
 What if in Armageddon men should say—  
 Her ships and not her seamen knew defeat!  
 Thou with thy millions and thy boundless sway  
 Thou with the laurel in thy hand on Nelson's Day?  
*The London Times.* *Harold Begbie.*

---

## THE CIRCUS.

### THE LAMENT OF A PURE MIND.

We must reluctantly assume, I suppose, that the success of the new Hippodrome means the death of the old circus, and that if we want again to see the circus of our youth we must first leave London. Not that the Hippodrome is unexhilarating; but it lacks the essential glory of the circus—the noble old traditions are wanting. Those smiling young women, for instance, who throng the Hippodrome doorways, masquerading as grooms—what do they there? At the doorways should be negroes; and “What makes you look so pale?” a clown should ask, ere the evening is over, of the blackest of them. And tan—what is a circus without tan? That mingled scent of horse and tan that used to meet one at the pay-box is inseparably a part of the circus fascination. But there is no tan at the Hippodrome, nor is it sug-

gested for a moment that it is any more the domain of horses than of lions. A horse now and then, it is true, eludes the vigilance of the manager and finds its way into the ring; but I heard the other evening two of the audience exchange satisfaction upon the security from equitation that the Hippodrome assures, and I am certain they were expressing the feeling of the house. For any emphasis that was laid upon horses we might as well have been in Venice. And they call it a Hippodrome! the word circus, it seems, having gone out of date. Only in the provinces, those strongholds of good sense and wise conservatism, and in Limbo, does the word circus now cause a thrill. In London we are too clever.

"Horses bore one," say the new sightseers; which means, of course, that the circus is not for them at all. For them the Hippodrome, the Hall of Variety. The circus is for a class of pure mind that is not bored; that takes with rapture everything that is offered. When Lord George Sangar (there is no peer of the realm on the roll-call of Variety Hall managers!) when Lord George Sangar sends round his procession to intimate to a palpitating town that all are invited, there is a tacit omission of critical, nicely-appraising, hair-splitting faculties. The circus is not for them; it is for the childlike, the indiscriminating, the acceptive; for the same pure minds that enjoy apple dumplings. Whatever enters the ring should stir you to your depths—even an exhibition of what is called the Haute Ecole—or you may as well be elsewhere. I must confess, with all my circus enthusiasms, to some desperately dull moments during exhibitions of the Haute Ecole; but we all have our lapses. Even then, however, the circus exerts its spell. Look round the house—the staff of grooms are permitting no shade of tedium to cross their countenances; all are tense, interested,

delighted. They clap their white gloves with splendidly simulated approval, even surprise. If one's eyes stray from the Haute Ecole they can rest upon these loyal servants. To a pure mind the circus can never be dull.

With the horses has gone the ringmaster. He figured once at the Hippodrome the other evening, and was then lost forever. But a circus without a ringmaster! They used to have black hair, parted in the middle and beautifully smoothed, evening dress (even at *matinées*) and white gloves. The ringmaster was almost one's earliest hero; the butcher came first perhaps, and then the policeman and railway guard; but the ringmaster, when his hour struck, thrust these plebeians, these usurpers, these Warbecks and Simnels, into impenetrable darkness. That whip was beyond all steels, all truncheons, all bull's-eye lanterns and whistles; one would not exchange it for a sceptre. The ringmaster's effulgence was superior even to the dimming influences of the clown's wit. That immortal dialogue following upon the bet of a bottle of "wine" (always "wine;" what is "wine?" champagne? claret? sherry? port?—port, I suspect) that the ringmaster could not answer three questions with plain yes or no; how often have I heard it and how potent it always is! The first question was anything; the second question was anything; but the third, propounded by the clown after long self-communing, was steeped in guile: "Do you *still* beat your wife?" There is no way out of that; affirmative and negative alike are powerless to rob that "still" of its sting; and off goes the clown with his bottle of wine, crack goes the whip, round ambles the old white horse with a back like Table Mountain, and the Signorina resumes her pretty capers. And to-day the ringmaster is seen only for an instant, and the speaking clown not at all!



And there is another, a tenderer, loss. With the ringmaster and the clown, the tan and the horses, have passed the ladies of the ring. We who are older can perhaps spare them with a finer stolidism than the very young; and here, on such a subject as this, my pen gives place to a worthier—to one who has written some of the most charming prose of any living author. Readers of "Dream Days" will remember how in his romantic childhood Mr. Kenneth Grahame, accompanied by Harold, visited by happy accident the circus—"the magic ring." Let us have some true eloquence:—

We gripped the red cloth in front of us, and our souls sped round and round with Coralie, leaping with her, prone with her, swung by mane or tail with her. It was not only the ravishment of her delirious feats, nor her cream-colored horse of fairy breed, long-tailed, roe-footed, an enchanted prince surely, if ever there was one! It was her more than mortal beauty—displayed, too, under conditions never vouchsafed to us before—that held us spellbound. What princess had arms so dazzlingly white, or went delicately clothed in such pink and spangles? Hitherto we had known the outward woman as but a drab thing, hourglass-shaped, nearly legless, bunched here, constricted there; slow of movement, and given to lusty action of limb. Here was a revelation! From henceforth our imaginations would have to be revised and corrected up to date. In one of those swift rushes the mind makes in high-strung moments, I saw myself and Coralie, close enfolded, pacing the world together, o'er hill and plain, through storied cities, past rows of applauding relations—I in my Sunday knickerbockers, she in her pink and spangles.

Summers sicken, flowers fall and die, all beauty but rides round the ring and out at the portal; even so Coralie passed in her turn, poised sideways, panting, on her steed; lightly swayed as a tulip-bloom, bowing on this side and on that as she disappeared; and

with her went my heart and my soul, and all the light and glory and the entrancement of the scene.

Harold woke up with a gasp. "Wasn't she beautiful?" he said, in quite a subdued way for him. I felt a momentary pang. We had been friendly rivals before in many an exploit; but here was altogether a more serious affair. Was this, then, to be the beginning of strife and coldness, of civil war on the hearthstone and the sundering of old ties? Then I recollected the true position of things, and felt very sorry for Harold; for it was inexorably written that he would have to give way to me, since I was the elder. Rules were not made for nothing in a sensibly constructed universe.

But Coralie's reign was not forever. A few minutes later—

Brayed in by trumpets, Zephyrine swung passionately into the arena. With a bound she stood erect, one foot upon each of her supple, plunging Arabs; and at once I knew that my fate was sealed, my chapter closed, and the Bride of the Desert was the one bride for me. Black was her raiment; great silver stars shone through it, caught in the dusky twilight of her gauze; black as her own hair were the two mighty steeds she bestrode. In a tempest they thundered by—in a whirlwind, a *sirocco* of tan. Her cheeks bore the kiss of an Eastern sun, and the sand-storms of her native desert were her satellites. What was Coralie, with her pink silk, her golden hair and slender limbs beside this magnificent, well-figured Cleopatra? In a twinkling we were scouring the desert, she and I and the two coal-black horses. Side by side, keeping pace in our swinging gallop, we distanced the ostrich, we outstrode the zebra; and as we went it seemed the wilderness blossomed like the rose.

These glowing, impressionable boys would visit in vain the new Hippodrome. No Coralie is there, no Zephyrine. All, all are gone. (But, incidentally, why does not some one com-

pel Mr. Kennethi Grahame to write more?)

The indictment of the new Hippodrome practically consists in the statement that it is not a circus. It is too good. A circus can offer poorer fare and yet by pure minds be considered excellent, unsurpassable. Take, for example, the band. The Hippodrome has a band that would hardly be out of place in the Queen's Hall; but a circus need no such refinement. It is conceivable that there is a Stradivarius in the Hippodrome orchestra; but a circus bandsman can be sufficiently an Orpheus on a half-guinea cornet. And there is that painful matter of the inexpensive tan. In the old circuses it used to fly up now and then and dust the stalls; and now and then a horse's hoof would beat against the side of the ring with a heavy thud. All this is gone. There are no brazen discords now, no heavy thuds, no flying, aromatic tan. And no stables! It used to be a rapture to go through the stables in the interval—down the long, sloping passages, with gas jets in wire cages—and find oneself between the tails of countless piebald horses extending as far as the eye could reach. Here and there a glimpse might be caught of an acrobat or a clown, or, more exquisite sight, of a fair equestrienne. The friendly, warm scent of those stables I can recall at this moment. Now it is no more. It used to puff out into the street and act as a more attractive invitation to the passer-by than any prismatic poster. And with it came muffled strains of the band and the crack of the whip—all combining in the late-comer to work his anticipation to intensity. These excitements are over. Cranbourne Street knows them not.

And those old, pleasant, innocent frauds are not practised there; the imposing five-barred gates that, as the horse approached them, were sloped

into insignificant wattles; the rings through which the Signorina purported to leap, but which in reality were insinuated over her by compliant attendants. And then there was that venerable jockey performance, the culmination of which was a leap from the ring to a standing position—albeit at an angle of thirty degrees—on the horse's back. In the old circuses it was the custom of the horseman to miss the crowning jump two or three times, in order that a fiercer flame of interest might be kindled in the audience. After two failures the band would stop (always the presage of a moment of strain supreme), the horse's head would be loosed, he would be urged to a greater pace, and the feat would gloriously succeed. Then what a crash of brass and outburst of delight in the building, involving even the staff and ringmaster in the expression of ecstasy. Those old simple days!

The versatility of the circus fills an ordinary being with despair. On one evening, I remember, two dazzling brothers, dressed in the costume of naval officers, walked airily up and down a pair of parallel tight ropes—danced, leaped, turned somersaults; and then, as if this were not enough, took each a violin, and, proceeding with their capers on their dizzy thread, played the while a tune; not merely any tune, but a recognizable one—the "Keel Row," or something of that order. Now to most persons it is not given to dance even on a level floor; but here were men who could dance on a string, and were musical to boot. In course of years I might, I fancy, reach to a painful progress down a thick rope, but never, I am certain, could I fiddle out a recognizable tune. Not that black envy spoiled my appreciation of the brethren. On the contrary, I experienced pure, unselfish admiration. But why are gifts distributed with such

curious impartiality? Why can every stableman play the concertina?

A worse shock to my vanity was in store. To be put to confusion by the superior accomplishment of one's own kind is nothing. It happens every day. But to be shamed by a seal is another matter. For years and years I have tried, and tried in vain, to attain even the simplest proficiency as a juggler, an equilibrist. To keep three balls in the air at once, to balance a stick on my forehead—these have been steady ideals for a quarter of a century; but I can do neither. Yet a little later on the same evening, a seal—an ordinary wet seal from some chilly Northern sea, a thing that is killed to keep warm the shoulders of rich men's wives—balanced a billiard cue on its nose with as much intelligence as the superb Cinquevalli. That animals can be taught routine, I knew; that they can be coached into mechanical feats is a commonplace; but to get a seal to understand the law of gravity is a miracle. Not only in a stationary position did it balance the cue, but it moved flappingly along the stage with its precarious burden. This is very wonderful. And other things happened too—displays of humor, well-reasoned games of ball, and so forth—which show us that it is time for us to revise our notions of this gentle creature. Here is a potential new force. It is time to clothe our wealthy ladies in other material, and think of the seal less as a skin than a mind. We might try experiments. Suppose the Lord Chancellor really were a Great Seal. . . . Perhaps the seal is the overman of the future.

Versatility does not, however, flourish in a luxurious temple like the Hippodrome as in the smaller travelling circuses and the circuses proper. There, every one can throw a somersault at a pinch—even a double one; every one can crack a whip; and no one is too

proud to exchange lyrical tights for the prosaic uniform of an attendant. Indeed it is part of the fun—an additional joy—to keep track of this perplexing variousness of the performers; to detect in the ringmaster of turn 8 the daring bare-backed steeple-chaser of turn 2, and in the third Brother Belloni of turn 10 to identify the clown Alberto who, in turn 5, while the pink lady rested after the arduous task of having banners slipped between her feet and the horse's back (called a "flying leap"), cracked such delicious jokes. But this discovery would come as a shock; one likes to think of a clown as a clown for all time. One likes to think of him as wearing ever a conical hat and flamboyant trousers eight sizes too large. I met our local circus clown once (Bimbo was his unforgettable name) in his own everyday clothes, and for a moment it was as though the light had died out of the world. Later in life I learned that a well-known waiter in mufti can depress one similarly—though not to the same extent. But to meet, after beef-eating hours, a favorite Beefeater in a cricket cap, must be worst of all—worse than a bishop in tweeds. But is it possible to make a favorite of a Beefeater? Can one play with fire?

And the zeal of the circus! That little army of grooms that guard the two doorways, and, when the turn is done, rush to prepare the ring for the next—how swiftly deft they are! The way they roll up the carpet at the Hippodrome and transform the ring into a fairy palace (beautiful desecration!) is a turn in itself. Firemen have the name for rapid execution, but no brigade could beat that. Those diverting, ill-dressed clowns, that, affecting to assist, only impede, are not allowed in when real business is afoot. It seems that there are people, by the way, who prefer the noisy buffooneries and parrotings of the theatre clown to these

artists. At Hengler's in Argyll Street—before folk skated there on real ice—was one Auguste (which has, I believe, come to be a generic name) whose imperious gesture of command, bidding the servants remove the carpet, is indelibly stamped on my memory. Marceline, as the Hippodrome's Auguste is called, is also great. To remember his true genius as an ingratiating grotesque, and then to watch him, as I did last winter, doing his best to leaven the inanities of the comic portions of Cinderella—so foreign to the spirit of the circus proper—was a misery. When will some one take these venerable conventions in hand and bruise them into impossibility? When will this illusion that vulgarity is the life-blood of pantomime be dispelled, and the sweet story of Cinderella be prepared for children's laughter, shorn of the coarseness of the ugly sisters and their gross father? Must pantomimes always be dominated by comedians whose ideal is to make Seven Dials guffaw?

The Cornhill Magazine.

But so far as the circus is concerned, such regeneration is irrelevant; for the circus should know nothing of Cinderella. Mazeppa—yes, and Dick Turpin's ride to York; although I doubt if we shall see either in our London pleasure dome. The new Mazeppa is Henri Fournier, lashed to a Mors car; a Mors car—portentous name! and the Dick Turpin of this era would escape from Black Maria on something far fleetier than Black Bess. Or a Masque of Horses might too fittingly be prepared to-day, when horses are a little in disgrace, wherein some friend of the noble creature should devise a pageant of his use to the world from earliest times, with the great individual horses of history—such as the Earl of Warwick's, slain to hearten his men—in occasional tableaux; the whole culminating ironically in the triumph of steam, pedals and paraffin. But I fear this program would be too appropriate to a Hippodrome to be popular. I was forgetting that "horses bore one." Unless, of course, they "plunge."

E. V. Lucas.

## CASILDA'S MIND.

### I.

Casilda Fane wondered a little defiantly what "he" would think and say if he knew that she had escaped from her aunt's protecting wing, and was seated on the grassy border of a trout-stream, with—actually, with her feet, and (not to be too precise) ankles, deliciously laved by the clear water which rippled so irresistibly over a sunny shoal of sand. But he was in London, and Casilda at Trégomar in Morbihan, in the very heart of the least frequented province of Brittany.

Behind her, a field of *sarrasin* ten-

derly perfumed the August zephyrs—ivory flowers nestling close in one unbroken sea of foam above their fluted, orange-tawny stems. To her right, a rampart-like wall of great stones, overgrown with furze and bracken, bedecked with a thousand little delicate ferns and wild-flowers, shut out a wide pasture-field. Beyond lay the gleaming white ribbon of road that ran from Trégomar to Quimperlé. As she sat, secure under the shelter of the clump of willows which leaned from the ruinous end of the wall, Casilda, lifting her head could just see the bridge which carried the road across her

stream, and the mile-post at its side which testified that two kilomètres lay between her and the empty market-place of Trégomar.

Closing presently her pocket-pen, she addressed herself, reluctantly (for there were magpies to watch in the copse on the other side of the stream, and, nearer still, shoals of little fish and a busy kingfisher), to a final reading of the letter which she had written to "him," to Marmaduke Brent, Esq., 4 Paper Buildings, Temple, London, E.C. "I can't—I can't—I can't," she had been saying to herself all the morning, while she read to her aunt; and "I won't," she had declared, aghast at her decision, as she put on her broad-brimmed hat, before setting out for the walk to which she had devoted the later part of the afternoon.

In the letter which was destined to fall like a thunder bolt on the complacent lover in Paper Buildings, you would have looked in vain for a "won't," and even the tempered brutality of "can't," was softened by three close-written pages of elaborate feminine periphrasis. But the effect was the same. Briefly, Miss Fane had changed her mind; and she submitted to Marmaduke's consideration the expediency of releasing her from their engagement.

With much originality, she invited her cousin (he was the only son of the aunt under whose escort she was travelling) to console himself with the thought that it was so much better that her discovery should have been made before it was too late. She sighed as she slipped the letter into its envelope. She was an abandoned wretch, of course; she ought never to have said "yes." And in three or four days' time Marmaduke's reply would come. He would write to his mother, no doubt; and Mrs. Brent—!

Casilda's imagination grovelled ignominiously before the task of forecast-

ing her aunt's demeanor. The situation was complicated by the fact that Mrs. Brent's sprained ankle made it impossible for aunt and niece to part company for at least another week—a week which they would have to spend *tête-à-tête* here at Trégomar. And yet, Casilda decided, as she flicked her wet feet delicately with an inadequate pocket-handkerchief, nothing should induce her to delay by so much as a single post the firing of the train which would bring about the explosion.

Perhaps she would break it gently to Mrs. Brent beforehand . . . but anyhow the letter must go. She wished now that she hadn't fastened the envelope; perhaps she ought to have made it plainer that, whether he consented to release her or not, the engagement must be regarded as at an end. What if he declined to release her . . . ? The letter must go—or should she tear it up? After all it was so hard to make up one's mind!

As she turned to watch the flight of a chattering magpie, her eyes rested for a moment on the distant bridge, and she became aware with a faint touch of surprise, that a man was seated astride upon the gray stone parapet. Strangers seldom found their way to Trégomar.

A curious panic seized her. A gray tweed coat, of English cut, knickerbockers, a knapsack—if it should be Marmaduke! But the idea was ridiculous; and, besides, the man was lighting a pipe; Marmaduke never smoked pipes; and it was difficult to picture the sedate barrister in knickerbockers. Still—an Englishman—and on his way to Trégomar. He had lifted his knapsack—or was it a sketching-case?—from the parapet, and was slinging it, postman-like, at his side. With abated interest, Casilda watched to see which direction he would take; and in an instant she realized with a shock, that he had scrambled down the steep bank



at the end of the bridge and was walking briskly along the side of the stream towards her retreat. A second later she had gathered up her scattered properties—a sketch-book—writing-paper—a sunshade—her shoes and stockings and was speeding barefoot, under cover of the wall to the little wood of chestnuts which lay behind the field.

It was not until she reached her haven, and sank, breathless, indignant and with tingling feet, on a mossy hillock, that she discovered that her haste was responsible for the loss of one of her shoes. Where had she dropped it? she wondered, as she lifted her head cautiously to question the grassy path which ran down the side of the field to her late resting-place by the rivulet. Her doubt was resolved when she realized, with mingled consternation and resentment, that the stranger was stooping—that he had picked up her shoe, and was subjecting it to a careful scrutiny. A shoe—it was humiliating—but it might have been worse! No doubt he would drop it presently and pass on. Alas, her expectation was cruelly deceived, for the monster passed on, indeed, but from her ambush Casilda could distinctly see that he had tucked the little brown russiate-leather shoe into a presumably capacious pocket.

## II.

It was six o'clock—nearly dinner-time—when Casilda threw herself, exhausted, upon the wooden bedstead which half-filled her little chamber at the "Lion d'Or." Her anxiety to avoid the high road had committed her to a devious route of winding lanes and field-paths, and the stocking which had so inadequately protected her unshod foot was dusty and full of holes. She would be lame for weeks, she told herself, as she buried the odd shoe in the

depths of her trunk and began, wearily, to prepare for encountering her aunt at the dinner-table. Descending half a hour later to the little terrace outside the dining-room, and turning towards the vine-clad arbor to which Mrs. Brent was wont, propped by a sturdy *bonne*, to convey her book or knitting, she immediately became aware that her aunt was not alone. Her heart sank as she recognized in the man—boyish, fair-haired, clean-shaven—to whom her aunt was confiding her impressions of the country, the inopportune stranger who had stolen—yes, stolen her shoe. The sound of the girl's footsteps on the gravel drew her aunt's attention.

"Oh—Silda!" There was a note of inquiry in Mrs. Brent's voice. "There you are at last? Quite a long walk, I suppose?"

"Yes—rather," said Casilda briefly, coming forward with some hesitation, and looking less than her eighteen years in a dainty white frock and a charming self-consciousness. "Some way beyond—beyond Ste. Barbe."

"Oh!" put in Mrs. Brent. "I thought you were going in the opposite direction—along the Quimperlé road?"

"That road looked so hot!" Casilda murmured, with a refinement of mendacity.

"It was!" the man declared impersonally.

"This gentleman—Mr.—"

"Carington—Hugh Carington," he supplemented with an apologetic blush.

"Mr. Carington has been telling me that he has walked all the way from Quimperlé since *dejeuner*!"

"I'm fond of walking," said Carington simply. "It's a pretty road, too, and there's no end of a good bathing-place in the trout-stream in the valley."

Casilda tucked her feet under her chair. "You remember the trout-stream?" she reminded her aunt.

"Where we saw those lovely dragonflies a week ago."

Carington stroked his chin reflectively. How lucky that he had shaved to-day! And—a week ago? Certainly that little brown shoe hadn't been there a week. . . .

"Are there many people staying at Trégomar this summer?" he asked, glancing from Mrs. Brent to her niece.

"Very few," said Mrs. Brent, half regretfully. "There was a painter at the other little inn—"

"He has gone," Casilda interposed. "We have had the place quite to ourselves till now." Then she continued quickly. "But I fancy there are some people staying in—in the neighborhood. Meurice—the little boy at the mill—told me that he had met some *demoiselles anglaises* on the Quimperlé road this afternoon. By the bridge," she added with intention.

"Americans, I expect," Carington nodded wisely. A discreet youth, he decided to suppress for the present at least, his story of the derelict shoe.

Before dinner was over, it had become apparent that Hugh Carington was no stranger to Trégomar and the "Lion d'Or." The smiling *bonne* who waited at table treated him with the special attention due to an *ancien pensionnaire*; and before long her assiduity had driven him to explain, laughingly, to Mrs. Brent that this was his fourth visit to Trégomar.

"They think I'm a—a kind of harmless lunatic, you know, because I paint. They give me a studio in the roof—among their potatoes and apples—that strikes them as very quaint—that I should want to sit up there!"

"Oh—a painter!" Mrs. Brent had rejoined with much condescension. "That is so interesting. My niece is very fond of sketching—"

"Oh—my sketching!" Casilda protested.

"I don't find very much time for

picture-galleries," Mrs. Brent continued affably. "But—I seem to remember your name—the Academy, perhaps—?"

"I've never exhibited in London," Carington smiled. "Only in Paris—and not much there yet. They've got an awfully nice old orchard here, at the Convent. I want to get leave to do a figure-subject there, one of these peasant-girls. . . ."

"Yes," said Mrs. Brent cautiously. "What is the girl asking?" she added, turning to Casilda. The *bonne* repeated her inquiry.

"Only if we wish to take our coffee in the arbor, as usual," Casilda explained.

"Such an extraordinary accent!" Mrs. Brent sighed. "Perhaps Mr. Carington will join us?" she added graciously. "I never object to a—a cigarette in the open air."

Casilda frowned. She would have liked to say that she didn't want any coffee; but, after all, that wouldn't help her, for she could not stay in the dining-room with a pair of commercial travellers and the Surveyor of Roads, and the inn afforded no other retreat save the arbor and her own room.

It was after nine o'clock when Carington made his adieux, declaring that he was going for a walk. If his talk had been directed almost entirely to Mrs. Brent, it was with her niece that his eyes had been no less attentively engaged.

"Rather a nice boy—considering—" Mrs. Brent murmured, suppressing a yawn. "Have you written to Marmaduke to-day, dear?"

Casilda started. After all, she had not posted her letter.

"Yes," she said. "That is, no, not to-day."

"You seem tired," her aunt continued presently. "We will go up to my room, I think; and you might read to me a

little? Please call Thérèse to help me up the stairs."

An hour later, alone in her bedroom, Casilda dismissed the doubts which, all the evening, had besieged her mind, with the familiar reflection that, after all, she need not decide anything until to-morrow. She was one of those people to whom to-morrow always promises the best advice and a field clean-swept of hesitancy; for whom a problem is a thing to be "slept on." And she was able to compose herself to sleep without any more definite conclusion than that, perhaps, it would be better to defer posting the momentous letter (luckily she had not dated it) until her aunt was well enough to leave Trégomar.

With this Mr. Carington in the way, it would be so very awkward to incur her aunt's resentment. She knew so well that Marmaduke's fond mother would treat her as a naughty, ungrateful child; she could not bear to think of enduring such a humiliation under a third person's eye. And Mr. Carington certainly made use of his eyes—in a painter, that was doubtless natural. And he was clever; his handling of her aunt—the manner in which he had ingratiated himself with that somewhat censorious matron—had certainly been adroit. He was young, too, she reflected, much younger than Marmaduke, and far better looking.

It was annoying that he should have dropped from the clouds like this, particularly that he should have possessed himself of her shoe; but perhaps it was hardly fair to blame him; it was she who had been careless, indiscreet. Still, if he had mentioned the subject she would never have forgiven him—never! What would he do with it? She wondered sleepily. It was rather a nice shoe; it was tiresome to have the pair spoilt, when she had only worn them for a fortnight; but somehow she was glad that it wasn't shabby—down at

heel—on the whole, that would have been much worse. . . .

### III.

It is, perhaps, hardly surprising that during the next few days Casilda's rambles were not altogether solitary. And before attributing the blame, or credit, to the inscrutable laws of chance, it would be well to remember that the dormer windows of Carington's studio garret commanded really excellent views of each of the four roads which converge upon the market-place of Trégomar. Carington, moreover, enjoyed the confidence and esteem of the native population, and it is reasonable to suppose that, when passing the time of day with such of his friends as he might happen to encounter on his walks abroad, a hint might be forthcoming as to the precise spot at which his charming compatriot had established herself with her novel and sketch-book.

However that may be, the loungers of the market-place speedily became accustomed to see Miss Fane return to the hotel accompanied by an assiduous squire, and knowing winks had been exchanged. It is possible that if Mrs. Brent had been in the habit of lounging in the market-place, her maternal bosom might have been gently ruffled; but it was to the garden and terrace behind the hotel that she limited the gratification of such perambulatory instincts as her injured ankle allowed her to indulge. A pleasant boy, she had thought Carington; but it would never have entered her mind that he could be compared, seriously, with "my Marmaduke." To Casilda, on the other hand, the comparison presented itself persistently.

About her sketches, for instance. Marmaduke had said that she sketched charmingly, considering that she had enjoyed no teaching, and the mention

of the subject always embarked him upon a learned (from guide-books) disquisition on the galleries of Florence and Dresden. Mr. Carington declared roundly that her drawings were worth a dozen of the cookery-recipe productions of the young lady who had sat under a master and knows the correct formula for autumn sunsets and the exact mixture for the foliage of oak-trees. "Fresh-unconventional," he had murmured. "Nice little bit—the sort of feeling that can't be taught . . ." And he must know better than Marmaduke, this real artist, who despised the Academy, and was full of such amusing stories of the great studios of Paris. . . .

"Extraordinary thing," said Carington, as, late in the afternoon of the fifth day after his arrival, he encountered Miss Fane in the hanging wood of chestnuts below the chapel of Ste. Barbe. "I had intended to walk towards Langonnet, but something told me—" He broke off with an expressive glance.

"It's so pretty here," Casilda declared cautiously.

"Ah!" He surveyed her with eloquent eyes. Then he frowned. "But I forgot—I'm afraid I'm making myself a nuisance."

Casilda gazed at him, her candid face full of innocent surprise. "Why do you say that?"

"Oh—nothing!" said Carington gloomily. A few minutes later he interrupted his companion's light ripple of conversation to protest that he couldn't help it—that he had been talking to her aunt. It was plain from his voice that the implication was something very tremendous.

"You can't help—talking to my aunt?" Casilda smiled. "Why shouldn't you? and she enjoys it very much, I'm sure. She has said so, more than once."

Carington shook his head. "You are laughing at me, Miss Fane; you have

been laughing at me all these days. Well, if it has amused you—"

Presently he continued, his voice tragically lowered. "Mrs. Brent hinted that—that you are engaged to—to her son. Is it true?"

"Oh," Casilda gasped. "In—in a sort of way. Not exactly . . . But—what right have you to question me?"

She confronted him with a fine show of indignation.

"In a sort of way?" he murmured hopefully. "Forgive me, I have no right. Except that I—I—"

"If you please we will change the subject. Indeed, perhaps it would be better if you were to continue your walk."

Carington bowed. "Your wish—" he murmured. "But—you won't be so cruel—you will let me walk back to the inn with you?"

Casilda had risen from her seat, and she watched him in silence while he possessed himself of her books and sunshade.

"I suppose if you are going back too, it would be rather ridiculous to ask you to go another way."

"Yes," he said humbly. "Do let me come with you. I—I won't transgress again."

As she passed before him down the narrow track that led to the valley, she noticed with a thrill that he lingered for a moment to retrieve the little bunch of wild flowers which had fallen from her bodice.

The two had accomplished more than half their journey when the light shallop of their conversation again drifted into troubled waters.

"I am in a dilemma," the man said suddenly. "I'm bound to tell you—but I'm rather afraid—"

"I don't see how I can possibly have anything to do with your dilemmas!"

"No . . ." Carington admitted. "But I think you could help me . . . Still, I won't say another word."

Casilda stole a side-long glance at him. "There were such squirrels in the little wood, just dozens!" she put in, inconsequently. Two minutes later she interrupted her companion's gallant efforts to pursue her new topic.

"Of course if I can help you," she faltered, in a voice which persisted, provokingly, in running up into an unfamiliar key. "I suppose I ought to—I mean, it would be only right, and you ought not to deprive me of the opportunity."

Carington laughed nervously. "Oh, it isn't so serious as all that! At least, it's very serious, in a way, for me—but you wouldn't think so."

Casilda gazed at the horizon with a pensive smile. "I'm not generally considered so very unsympathetic," she protested plaintively.

"Oh, I didn't mean—no one could be more sympathetic, or—charming in every way," he added softly.

"That was quite unnecessary, Mr. Carington," Casilda declared with an attempt at firmness. "And I am waiting for you to be serious."

"Oh, serious?" echoed the other. "When I tell you that it's all about a— a shoe!"

"A shoe?" the girl repeated.

"You don't happen to have lost one lately?"

"No," she breathed quickly, throwing as a sop to her conscience the fact that she knew very well where it was.

Carington's face fell. "Then—I think that's about all!" he said lamely.

"I don't quite see the dilemma," Casilda suggested.

"Oh," said Carington, "it's there, but it turns out that it isn't a bull after all—I mean, it hasn't got horns."

Casilda was silent for a moment. "Suppose," she said presently, "only suppose—but if I had said yes, that I had lost—?"

"You would have made me very happy! At least comparatively happy."

"I don't think it would be nice of you to be happy because I lost things."

"Oh! but if I found them."

"Do you mean that you have found a—a shoe?"

Carington nodded. "The day that I came. I picked it up by the river, and I couldn't find an owner for it anywhere round, so I carried it off in my pocket."

"And gave it to Jean-Pierre—to the town-crier?" Casilda hazarded.

"Well—no. You see it's rather a nice little shoe, and I had an idea that the owner might not like—anything in the shape of publicity."

Casilda shot a grateful glance at him. "But there's nothing to be ashamed about in losing a shoe," she declared, recovering her ground.

"Oh, no," the other smiled. "Still—"

"One might have taken—the owner might have taken it out with her just to sew on a button."

"Laces," Carington murmured. "Brown Russia-leather, with a brown silk lace . . . and bought at Paul Barc's, in Sloane Street."

(True, Casilda reflected—thirty shillings, and the bill not yet paid!)

"Well," she said cheerfully, "you can always send it to Paul Barc; he would probably know whom it was made for."

"That's supposing it was made to order."

"Oh it was—probably," Casilda added just in time.

Carington eyed her sharply. "The fact is," he declared after an interval of silence, "I—I hoped it was yours. It looked as if it might have been . . ."

"I think I told you that I hadn't lost a shoe." Casilda put in hurriedly.

"Oh, I know now," he sighed. "But before I knew, I was torn between my hope that it was yours—something that you had worn—that I was cherishing—treasuring, and my fear that it belonged to some other girl—"



Casilda seemed intensely interested in an apple-tree on her side of the road.

"It oughtn't to have made the least difference," she said, just audibly.

"Oh, I know," the man sighed, "since—this afternoon. But how could I help—loving it if I thought it belonged to you, and of course, if it didn't, I shouldn't want to look at it twice. That sounds involved, but you see my dilemma. Was I to take an interest, or wasn't I?"

"And—and did you, or didn't you?" Casilda inquired, presently.

"I'm bound to confess I took no end of an interest. It was wrong of me, I suppose—I ought to have known."

"Perhaps you did know—I mean—oh, I really think we have talked quite enough about an old shoe?"

"Nearly new," Carington corrected her. "And quite a pretty little shoe, though not pretty enough . . . Well, I suppose I may as well send it off to the man in Sloane Street?"

Casilda considered the question gravely. "I—you might as well keep it a little longer," she suggested. "In case some one claims it? I should think one—the girl who lost it might make inquiries—"

An hour later, when Casilda descended from her chamber to the dining-room, she carried with her the momentous letter which she had written nearly a week before to Marmaduke Brent. At dinner she seemed by turns pre-occupied and strangely animated. Afterwards, while the little party of three discussed their coffee in the arbor, she had scarcely a word for her aunt, and none at all (it seemed to him) for Carington. When he said good-night, declaring, as usual, that he was going for a walk with his pipe, she handed him the letter with an air somewhat elaborately indifferent.

"You might post that for me," she said.

"To Marmaduke?" her aunt smiled. "That reminds me; perhaps Mr. Carington would kindly post this letter for me."

Casilda dropped her eyes before the frown which darkened Carington's face. "Yes, to Marmaduke," she said slowly.

#### IV.

Casilda, watching the moon from her bedroom window, calculated that at the end of four days she might expect Marmaduke's reply. By that time her aunt would be well enough to travel; indeed, Mrs. Brent was already so far recovered as to have arranged a carriage expedition for the morrow. And it was not unnatural that Mrs. Brent should be by no means reluctant to escape from the primitive accommodation of the little inn to which her disability had tied her for so many tedious days.

A quick step broke the silence of the deserted market-place, and Casilda drew back, softly closing her window. The sight of the shoes which she had taken off in the afternoon brought a light of mischief to her eyes; and in an instant she had opened her door, and deposited them in the passage outside. Since Hugh Carington's arrival, she had been careful to discontinue this practice; but now, it seemed, she was no longer afraid of the conclusions that he might draw if he should happen to see that these shoes, too, bore the name of the maker in Sloane Street.

Nearly an hour passed before he came upstairs, but Casilda was still awake, and able to assure herself, half regretfully, that he had paused for just an instant as he passed her door. In the interval her thoughts had kept her busy. The romantic glamor of the afternoon had faded away, and the doubts which had been so insistent before she wrote her letter again assailed

her mind. Well aware that she was behaving badly, unpardonable sin in a portionless damsel, she realized that, in the eyes of her critics, her offence would seem all the more heinous because it had been committed after she had become acquainted with the young landscape painter. Before she went to sleep, she more than half wished that she could recall her letter; but there was consolation in the thought that, after all, the step was not necessarily final, irremediable.

She half hoped, half feared, that Marmaduke would be obstinate; that he would plead with her. It would be something, at least, to bring her placid lover to his knees . . . It was pleasant to have this attentive young squire to carry her sketch-book, and make her pretty speeches. She was more than half in love with him, but—her “but” implied, amongst other things, that Marmaduke was possessed of a good income and excellent prospects, whereas Mr. Carington, oh, that would be a case of “love in a cottage!”

The next day was occupied, for Casilda and her aunt, by the expedition of which mention has been made, a visit to one of the historic *châteaux* of the province; and it was not until late in the evening that Carington found an opportunity to exchange a word with the girl, whose *manèges*, it must be confessed, had somewhat puzzled him.

“You’re quite sure it isn’t your shoe?” he suggested persuasively.

“I thought I told you that I hadn’t lost a shoe.”

“It wouldn’t be lost if you knew where it was,” he hinted with some acuteness.

Casilda opened her eyes. “How should I know, till you told me yesterday?”

He nodded. “All the same—Paul Barc, you know.”

“Paul Barc?”

“You do get your shoes there?”

“Oh!” she gasped mendaciously, “I didn’t think men were so inquisitive.”

“Ah!” he pleaded. “When one’s so deeply interested!”

“Besides,” she continued, “ever so many people go to that shoemaker.”

“But—it is yours?” he insinuated.

“I think you ask too many questions,” she replied with dignity.

Two days later, meeting her by the mill in the afternoon, he provoked a repetition of this expression of her opinion.

“Oh,” he sighed, “that’s a pity—”

“A pity?”

“That you should think so—when I want to ask so many more!”

“Of course I’m not obliged to answer them.”

“I want to know, tremendously, whether you are really engaged? You said—in a sort of way. If only I could hope that—that—”

He was very close to her as they leaned on the parapet of the little bridge that crossed the mill-stream, and the moment was propitious. She let her eyes rest on him for a moment, pensively.

“That’s a forbidden subject,” she reminded him.

“Yes—but if it wasn’t?”

“Oh—if!” she laughed, pretending not to notice his hand which had fallen on hers.

“Silda,” he breathed softly, “I never heard the name before.”

“It’s short for Casilda,” she explained. “I don’t much like it.”

“You might tell me!” he pleaded.

“It’s time to go back to the hotel,” she declared.

Just before they parted, in the market-place, she murmured, on the spur of a sudden impulse—“You have no right to ask, but I’m not—not nearly so much as I was a few days ago!”

Before he could speak she had vanished.

Next morning she confided to the

cracked mirror which swung undecidedly over the Lilliputian crockery on her washstand, her growing conviction that she was a dreadful little wretch, and a flirt, and everything that was horrid. "If only I wasn't so afraid of poverty!" she sighed.

She had risen early. At ten o'clock Marmaduke's letter would come, and she was already in a fever of expectation. On the morrow, Mrs. Brent had decided, they were to leave Trégomar for a less rustic retreat, some thirty miles away.

Casilda was at the postoffice when the mail arrived, and she waited for nearly half an hour while the process of sorting was performed. Yes, there was a letter for Miss Fane; another for Mrs. Brent; both addressed by Marmaduke's hand. If he had written to his mother before "having it out" with her, Casilda vowed that she would never forgive him. Forgive him, Casilda reflected as she fingered her letter irresolutely. Perhaps he wouldn't ever want to be forgiven!

A moment later she had opened the envelope, and had skipped from the first words to the last with incredulous eyes, and a little gasp of surprise not unmingled with relief. "Why hasn't my little Sildy written to me for so many days?" He had seen such a convenient flat near the Park, and he was very busy with a heavy Indian appeal, and Uncle Richard had kindly promised a Broadwood semi-grand, *et patati, patata*; and at the end a reiteration of his desire to hear from her. . . .

Of course, he hadn't received her letter when he wrote. These French post-offices! And yet "Mother tells me that you have almost decided to leave for Ploërmel on Saturday." Now Ploërmel had not been talked about before the day on which Casilda had entrusted her letter to Mr. Carington. It was strange, surely, that Marmaduke should have received his mother's

letter which the young painter had posted at the same time . . . ?

Well, she would have to wait till the next morning, a whole day and night. Was it to be Marmaduke and the eligible flat near the Park, or Hugh Carington and a cottage, very vaguely realized, in the precincts of Fontainebleau? Which did she want? Did she want either? It would be time enough to decide when Marmaduke's letter came.

The exigencies of packing curtailed her accustomed leisure of the afternoon, and she did not see Carington alone until the hour before dinner, when she encountered him in the market-place.

"What a blank, empty day!" he sighed. "And you are really going to-morrow?"

He looked very hot and dusty, Casilda reflected. And he was wearing a pink shirt—a pink shirt with a dark blue tie; as a painter, he ought to have known better.

"Yes, we're going to-morrow morning," she admitted.

He was silent for a moment. "And you will be alone—you and your aunt—at Ploërmel?" he asked abruptly. They were strolling in the direction of the inn; Casilda quickened her step a little.

"Really, I hardly know," she answered discouragingly.

"I was thinking," he continued, "it isn't very far, and I have heard that the country is paintable."

"Oh, yes," Casilda interposed cordially. "You ought to go there some day, you would find plenty of subjects."

Carington eyed her plaintively. "I see," he nodded. "You don't want me to come, no doubt Mrs. Brent is expecting 'my Marmaduke!'"

Casilda flushed angrily. "I think you are forgetting yourself," she declared. "I can't allow you to talk like that."

"Forgive me," he sighed. "But you

can't expect me not to hate him! And if you only knew how much I want—how much I want you to sit to me!" he concluded rather lamely.

They had reached the entrance of the "Lion d'Or."

"Don't go in yet," he pleaded. "One more walk round the market-place, or I shall think that you are angry with me."

"I am," she smiled, yielding, after a moment's hesitation, to his entreaty. "But as I haven't been out for a proper walk to-day—"

"I looked for you," he murmured.

Casilda remembered that Marmaduke wore flannel shirts—gray flannel sometimes—in the country. That was even worse.

"I don't think you ought to have looked for me," she said more gently. "I shall begin to be afraid that our meetings have not been accidental."

"Did you think that they were?" he smiled.

Casilda drew herself up, ignoring the question. They were passing the post-office, and a sudden idea occurred to her.

"You didn't forget to post that letter for me the other evening?"

Carington frowned. "I didn't forget," he said slowly.

"Thank you," Casilda murmured. "It was rather important."

"Important!" he echoed bitterly. "How could you be so cruel?"

His eyes flashed as Casilda glanced at him, and his sun-burnt face looked strangely grim. Cruel, she reflected; no doubt *he* could be cruel.

"I didn't post it!" he blurted suddenly. "I tore it into a thousand bits and threw it into the river."

"Oh!" the girl gasped. Then as a strange feeling of relief succeeded to her first thrill of surprise and indignation, she yielded to a fantastic little quaver of laughter.

"Then you're not angry?" he faltered,

with an almost ludicrous change of expression.

Casilda was silent for a moment, biting her upper lip. Then she turned towards the inn.

"I ought to be," she declared cheerfully. "But it would be a pity to quarrel now, since—"

"Since?" he echoed in bewilderment.

"Since we are not likely to meet again—ever."

"I don't understand," he stammered.

"It's not necessary that you should," she smiled sweetly. At the entrance of the hotel she paused. "You are very young," she declared with a fine assumption of dignity. "And I am willing to believe that you have had no intention—that you have not been wilfully impertinent. But I think that, on reflection, you will admit that you have presumed a little on the kindness which my aunt and I have endeavored to—show to a solitary stranger."

She had disappeared before Carington found any words to meet the occasion.

"Well, I'm ——!" he murmured, with much emphasis, as he turned his back on the hotel.

At dinner he found himself treated by both aunt and niece with neither more nor less than their accustomed cheerful affability. They both expressed polite regret when he declared that he found himself unable to join them over their coffee in the arbor. Mrs. Brent paid a graceful tribute to the chance which had thrown him in the path of their wanderings.

Next morning, Casilda, rising early to complete her preparations for departure, experienced a gentle pang, which for a moment interrupted her speculations as to whether Marmaduke's flat was north or south of the park, when she opened her bedroom door to find a small brown shoe dis-

posed forlornly in the centre of the wolf-skin mat.

"He was rather a nice boy," she sighed, as she explored the interior of the shoe, half disappointed to find it empty. "But quite impossible!"

Temple Bar.

At breakfast Mrs. Brent was greeted by the voluble landlady with the news that Mr. Carington had gone for a long walk—that he had desired her to make his adieux to *ces dames*.

Arthur Moore.

---

### THE SECRET OF EMERSON.

Much may not unjustly be said in disparagement of Emerson, but the fact remains that within little more than eight months his countrymen will be keeping his centenary, and that their proceedings will be followed with lively interest wherever the English language is spoken, and here and there in the regions where it is not. After this, discussion as to the fact of Emerson's eminence may be waived as superfluous; but it may not be useless to seek for some formula summing the man, and tersely expressing, if this be possible, the peculiar secret of his distinction. No such definition can be exhaustive, the various orders of genius, however great their diversity, always have this one quality in common, that they are incommensurable. We must approach as near as is feasible, and, reversing what Emerson himself tells us of the instinct of the human mind to draw a circle as widely as it can around every object, draw ours as close to the original as may be, in the hope that one nearer still may come to be inscribed in process of time.

If one strove to state the peculiar characteristics of Emerson in the fewest possible words, it might not be amiss to define him as a seer without pretensions to the supernatural. He stands midway between mystics like Blake and Swedenborg, whose teaching is professedly based upon communications from another world, and rea-

soners like Stuart Mill or Herbert Spencer. So, it may be objected, does the poet, who, though he need not, like Dante, claim to have perambulated Hell, Heaven and Purgatory, must be able to affirm with Coleridge,

I on honey-dew have fed,  
And drunk the milk of Paradise.

But there exists a clear distinction between poets in general, including under this term all obviously inspired writers, whether their form of expression be verse or impassioned prose, and Emerson. It is the distinction between inspiration and intuition. The poet, when he really writes as such, is in a measure in an abnormal state. He is conscious of a visitation from without, of the presence of something that has come to him without his seeking, and might at any moment depart, leaving him impotent and mute. "The mind in creation," says one of the greatest of poets, "is as a fading coal, which some invisible influence, like an inconstant wind, awakens to transitory brightness." This, literally and figuratively, may be described as inspiration, and is as conspicuous in great imaginative prose-writers, such as Carlyle and Ruskin, even in writers of the grade of Borrow and Jeffreys, as in the poets themselves. In Emerson it seems exceptionally wanting, but is replaced by the much rarer, though perhaps not



finer, endowment of intuition. Emerson is not a prophet, but a seer. It is usual to class him with Carlyle, and the points of contact are assuredly numerous. But the methods of the two are quite distinct. Carlyle takes up some extensive subject, and fuses it in the glow of his own imagination, hurling in idea after idea to feed the flame. All that is colored by the light of this volcanic imagination seems for the time a new heaven and a new earth. Emerson stands forth calmly producing his ideas in an almost casual sequence, like beautiful crystals, crystalline in the perfection of their transparency and their geometrical regularity, but, if one looks into them, capable of affording glimpses of an infinite within. And, as a crystal or a gem cannot be partly genuine and partly false, Emerson is commonly either very right or very wrong. You cannot say of his deliverances, as so often of Carlyle's, that they are a mingling of truth and error; they must in general be taken altogether or rejected altogether. If they are accepted, this is by no means due to the author's powers of reasoning, or to any special gift of eloquence, or to the ability to overwhelm the contrary views with sarcasm or invective. The appeal is simply to the intuitive faculty of the reader or hearer, who is supposed to be capable of verifying what he was incapable of discovering for himself. This is precisely the position of Blake or Swedenborg, and Emerson is hence more fitly classed with the seers, whose insight comes to them by simple intuition, than with the poets and prophets, who require to be taken out of themselves.

To all but a thorough mystic Emerson's advantage over Blake and Swedenborg must appear unspeakable. Their supernatural pretensions are a continual offence, inasmuch as, by a continual propounding of what it is impossi-

ble to accept, they force upon the most friendly hearer, the alternative of deception or delusion. Neither of these has any possible application to Emerson; he might as well be accused of burglary or arson. It is much to have demonstrated that there is no necessary connection between spiritual insight and supernatural phenomena, and that a seer need never have had a trance in his life.

From a purely literary point of view, Emerson's peculiar gifts may well be less advantageous to him. They disable him from the practice of literary art on any extensive scale. Art implies the subordination of parts to the total effect. Something must be kept in the shade. Emerson's disquisitions, consisting mainly of a succession of detached thoughts complete in themselves and but loosely connected with each other, are incapable of this treatment. As they resemble crystals in their purity, their individual symmetry and their permanent worth, so also in their incapacity for combination, save as constituents of a chain or a pattern. As a German æsthetician might say, Emerson's composition is deficient in architectonic; he builds up nothing. How weak the instinct for formative art was in him, his *Essay on Art*, valuable and suggestive as it is in many respects, sufficiently indicates. The same indifference to art is notable in the other great teacher of his age, Carlyle. Yet one feels sure that this consummate master of portraiture with pen and ink must have appreciated a fine portrait with the brush when he saw one; one has not the same confidence as regards Emerson.

Carlyle was an artist in other respects; he delighted in the concrete, and he excelled in giving his conceptions imaginative form. The concrete is in a sense the element of art, whose most airy conceptions must be moulded out of something, and their embodi-

ment in imaginative form is, at least as regards its higher departments, the very cause and condition of its existence. Emerson's remarks frequently display admirable insight into the life around him, yet the world of men is clearly not his proper element; and he has no power to give his conceptions imaginative form. He reveals, but he does not create. The truth he declares has always been there; he has not evoked it, but divined it; his merit is to have been the first to see it. He can make the most illuminating and incisive remarks on individual traits of character, but not even in "Representative Men," where he had ample room and verge enough, can he exhibit a character in its totality. Much less can he create a person or an environment, as Carlyle has done in "Sartor Resartus." How great the loss must be may be realized if we can imagine all the poetry and all the wisdom of "Sartor Resartus" remaining, but *Teufelsdröckh* and *Weisslichtwo* and *Entepfuhl* and whatever imparts substance to the vision taken away. If Emerson could have embodied his gospel in a figure like *Teufelsdröckh*, or even in lifelike portraits of some of the remarkable disciples with whom he was actually familiar, such as Thoreau or Alcott, he would have appealed to much wider circles and gained greatly in influence and popularity. Ruskin is as incapable as Emerson of evolving an ideal character or fully delineating a real one. The sight of so extensive a work as "Modern Painters" is somewhat alarming; one is inclined to echo Carlyle's naïve ejaculation on beholding Millais's fine house and furniture, "Can all that have come out of *paint*?" But Ruskin's subject compels him to deal with the concrete. He means to preach and he does, but he cannot discourse for five minutes without importing some gorgeous landscape, or

beautiful natural object, or striking trait of human personality, or supreme work of art.

Emerson has, nevertheless, one signal advantage over those of his contemporaries who claim to be something more than narrators or reasoners. None of them is so like him steeped in the very element of beauty. The beauty which failed to commend itself to him when it came as art at one remove from the primal source captivated him entirely when it presented itself as nature, or as human characters, or institutions accordant with the reason of things. He then writes as with a thrill of pleasure. His words are the aptest and choicest. And his own language has in a remarkable degree the power of calling up the sentiment of beauty. Unlike the ambitious splendors of Ruskin, or the dainty device of Pater, his words never appear to be employed for the sake of rhetorical effect, or selected for peculiar fitness, but to come of their own accord as self-conscious that they and no others are the right ones. Save for an occasional attempt at unseasonable smartness, his diction never loses this exquisite propriety. It may be said to him, as he says to his readers:—

Thou can'st not wave thy staff in air,  
Or dip thy paddle in the lake,  
But it carves the bow of beauty there,  
And ripples in rhymes the oar forsake.

The character which we have attributed to Emerson of a seer without supernatural pretensions invites comparison with two illustrious Englishmen of whom the same may in a measure be predicated, Coleridge and Wordsworth. Coleridge cannot perhaps be entirely acquitted of an occasional propensity to masquerade in prophetic attire; but undoubtedly the more oracular he is the less he is of a seer. His claims to the gift of intuition rest less

upon his philosophical than upon his critical utterances, which are sometimes so marvellously illuminating as to seem directly derived from the source of all light, and to need no corroboration by the exercise of the reasoning faculty. Wordsworth, however, affords a closer parallel. There is a striking affinity between these two children of nature; the main distinction perhaps is that Wordsworth is conscious and over-conscious of a mission, while Emerson can hardly be said to have proposed any object to himself except that of speaking as it might be given to him to speak. He actually is the ideal which Wordsworth frequently embodies in his personages, but rarely realizes in himself. His great defects

*Literature.*

in comparison with Wordsworth are the lack of pathos and of the feeling for artistic form, except in isolated sayings, nearly always polished and symmetrical, and in a few poems like "Rhodora," so beautifully finished as to render the generally amorphous character of his poetry almost incomprehensible. Another puzzle arises out of the lack of humor common to both these illustrious men. One has just as much of it as the other—that is to say, neither has any; and yet, by some trace of innate refinement or benediction of the Muses, Emerson never appears absurd from insensibility to the humorous, as frequently happens to Wordsworth.

*Richard Garnett.*

---

### THE GLITTERING STYLE.

Among the first and last difficulties of literary art are these—to describe things as they are, to know what one feels and to express that feeling plainly. Which means that the writer must possess the great gift of sincerity—rare in literature as in life. It is such writings only that live, making fresh appeal to generation after generation. The hymn "Nearer my God to Thee" has that quality, and so custom cannot stale it. It is the possession of George Eliot, Charlotte Brontë, the author of "John Inglesant," the author of "Mark Rutherford," to name but four. It was as much a part of Darwin as his ill-health, and shines out, pure, clear flame, in that short autobiography of his, especially the fragment which deals with his speculations on religion. It cannot be counterfeited. Let a writer try to conceal his insincerity as he will, it will out like moisture.

One of the enemies of sincerity is the modern rage for glitter and cleverness in prose composition. We do not say that the glittering writer is necessarily insincere, but his anxiety to strike attitudes, to sparkle, to be saying continually to his reader: "Remark that admirable phrase, that arresting epithet, that bright conceit, that startling simile—am I not clever?" makes for insincerity. The cleverness of many modern books is colossal. Often, as we read, we do not say, "What clear, good thought," but rather, "Why on earth does he say what he has to say so oddly?" Sometimes this cleverness is merely the failure to hide the marks of labor, a craze for polish, the niggling use of a score of brush-marks when one broad stroke should have produced the effect. Take an example from an able and scholarly modern collection of short stories: "He had

the soft purring ways of a cat, the tact of a Jesuit, the penetration of a money-lender, the sensibility of a musical amateur, and the morals of a maid of honor." Is that good characterization? No. Do you believe it? No. We are conscious of the writer's ingenuity—that is all. Here are a few passages from another book, a successful and highly praised modern novel. Do they spell sincerity? Hardly. But they certainly conjure up a picture of the author assiduously desirous to be at his best, to glitter, to show his cleverness. We can see him at work making the phrases: "She blinked sagely." . . . "He looked through her eyes into the East, and was aware of the stainless beginning of things—joy as yet unvoiced, and sorrow with folded pinions." . . . "Her veins ran ichor; she was full of the unknown god, stamped and sealed the desired of heaven." In contrast let us take, almost at random, a passage from "Adam Bede." Ten lines and there is Dinah. You know her. You believe in her. She is alive. It is Dinah who makes the picture—not the personality of the author:

But Dinah walked as simply as if she were going to market, and seemed as unconscious of her outward appearance as a little boy; there was no blush, no tremulousness which said, "I know you think me a pretty woman, too young to preach," no casting up and down of the eyelids, no compression of the lips, no attitude of the arms that said, "But you must think of me as a saint." She held no book in her ungloved hands, but let them hang down lightly crossed before her, as she stood and turned her gray eyes on the people.

These are high matters. Let us now approach the volume that suggested these remarks. It is of American origin. The title is "A Journey to Nature," the author Mr. J. M. Mowbray,

the publishers Messrs. Constable & Co. We know nothing of Mr. Mowbray. This may be his first book, it may be his fiftieth; but one thing is certain—he is an extremely clever writer, scholarly, observant, with a distinct gift of characterization, and he can construct a book with the best. In this volume he set out to do what Thoreau did, but, unlike Thoreau, he utterly fails to persuade us of his literary sincerity. His book has given us keen pleasure. We read it with interest, and were sorry when the last page was reached; closing it, not with the conviction that here is a fine piece of literature, but that Mr. Mowbray is a very clever man. Possibly that is what Mr. Mowbray desired. Then full merrily all is well.

If Mr. Mowbray wished to convince, his method is wrong from the beginning. We have never been inside the New York Stock Exchange, but it does not need that experience to tell us what a Wall Street stockbroker is like. *Imprimis* he would not scatter through his autobiography references to Brahma, Wagner, Martineau, Milton, Lucullus, Swedenborg, Darwin, Virgil and Balzac. A Wall Street stockbroker, we suggest, would not write like this (nor should Mr. Mowbray):

One hot day we lay flat on our stomachs under the shade of a beech, among the June grass and the daisies, peering down into a magic spectacle, and yet it was the planet's history *in petto*. The great loom of the universe was working there with miniature continents. It was a palæontological glimpse of the pre-world, as if Nature kept ceaseless memoranda in shorthand of all her monstrous cycles of change. There were the equatorial forests and the prehistoric monsters. All one had to do was to get the inverse scale adapted, and the gigantic fronds waved their plumes, and strangling creepers wound in tangles, and strange forms of life wandered through. Green leviathans crouched in corners; scurrying

termites ran hither and thither. A slow-moving angleworm drew his ophidian length along the ancient geologic reaches, and an armored pterodactyl, in the shape of a dragon-fly came in flaming gorgeousness like Apollyon, and picked up an inhabitant or two. Here was the oldest Nibelungen Lied going on still, with real dragons amid the real elements in this demiurgic workshop. Somehow I fancy that Wagner, when he heard the eternal melodies, must have been lying on his stomach and looking at the eternal animate forces.

Neither would a Wall Street stock-broker indite in the solitude of his chamber the string of sentences that follows. Mr. Mowbray should have denied himself the luxury. Not since we perused the war prose of Mr. Hales have we drawn so near to the purple:

He is a delightful megatherium of an extinct school, and his corrective belowlings, muffled by distance, afforded me much amusement in my solitude.

We had caught the old orb unawares in a positive dithyramb, and as I watched the choric rythmus in the trees, flashing and leaping amid the gnarled branches that took on grotesque involutions, in one blessed instant I felt sure that there were satyrs and fauns, wet with the cool dew, cavorting in Attic exuberance under the trees.

The white flesh of the mænad birches flashed, marbllelike, behind the solid junipers.

The air was like children's kisses, and as sweetly cogent as a mother's prayer is to an infant that does not understand one word of it.

These passages show the pitfalls that yawn for the writer who is not able to control his desire to glitter. The result is that the reader in his simmer of protest against the manner of the writing is apt to disregard the matter. And

Mr. Mowbray's matter is good—very good. The scheme of the book is simple. He imagines a keen-witted, overstrained New York stockbroker (we are unable to regard the conception of the book as anything else than a literary *tour de force*), who, in the opening chapter suddenly discovers that the strain of living has become too much for him. His doctor, the "delightful megatherium" of the story, gives him six months of life, unless he will consent to retire into the wilderness and live there a year, divorced from every interest and detail of his past life. He consents (he is a widower), snatches his little boy from school, and migrates to a weather-beaten hut in the woods one hundred miles from Wall Street. There they live for a year. The narrative is never dull, and it is never quite real. Thoreau's name wanders through the pages, suggesting on each occasion the inevitable comparison between the work of the author of "Walden" and the work of the author of "A Journey to Nature." Thoreau wrote from an irresistible desire to express his brooding thoughts and inmost feelings. Mr. Mowbray because—oh! there are twenty reasons why moderns write. The result is that the one book is literature, the other a brilliant piece of literary work. We will conclude by giving two examples. They are both character-sketches of men the authors met in their retreats. Here is Mr. Mowbray's picture of Gabe Hotchkiss:

Gabe Hotchkiss was a forehanded veteran who had developed along "the cool sequestered vale of life" until it was hard to distinguish him from the materials he had worked with. He wore the aspect of a sinewy old trunk, gray and gnarled, whose roots in the ground have outspread the branches in the air. I was afraid his thrift was earthy. I could not quite make out if that stoop in his shoulders was humility or gravitation. His hair grew bushy



and gray all over his head, and down his jaws to a sort of mossy stalactite on his chin (I was getting bald at forty-four). He never was sick a day in his life after he teethed, barring three days that he was laid up that year of the Chicago fire by Squire Losee's bull that hooked him under the rib and threw him over a stone fence. He had risen and set regularly as the sun for sixty-five years, and there was no physical intimation that he would not continue to rise and set for sixty-five more. He was as punctual as the gas-collector, or the seven-year locust, and he would cut and pile a cord of wood without stopping to take heed or to take breath, and then walk to town for his supplies when he wanted to save his horses.

And here is Thoreau's picture of the "old brown-coated man" from "A Week on the Concord and Merrimack Rivers:"

I can just remember an old brown-coated man, who was the Walton of this stream, who had come over from Newcastle, England, with his son—the latter a stout and hearty man, who had lifted an anchor in his day. A straight old man he was, who took his way in silence through the meadows, having passed the period of communication with his fellows; his old experienced coat hanging long and straight and

*The Academy.*

brown as the yellow-pine bark, glittering with so much smothered sunlight, if you stood near enough—no work of art, but naturalized at length. I have often discovered him unexpectedly amid the pads, and the gray willows when he moved, fishing in some old country method—for youth and age then went a-fishing together—full of incommunicable thoughts, perchance about his own Tyne and Northumberland. He was always to be seen in serene afternoons haunting the river, and almost rustling with the sedge; so many sunny hours in an old man's life, entrapping silly fish, almost grown to be the sun's familiar; what need had he of hat or raiment any, having served out his time, and seen through such thin disguises? I have seen how his coeval fates rewarded him with the yellow perch, and yet I thought his luck was not in proportion to his years; and I have seen when, with slow steps and weighed down with aged thoughts, he disappeared with his fish under his low-roofed house on the skirts of the village. I think nobody else saw him; nobody else remembers him now, for he soon after died, and migrated to new-Tyne streams. His fishing was not a sport, not solely a means of subsistence, but a sort of solemn sacrament and withdrawal from the world, just as the aged read their Bibles.

You can choose between them.

## BOOKS AND AUTHORS.

The celebrated trial out of "Pickwick"—Bardell v. Pickwick—forms the subject of an interesting monograph by Mr. Percy Fitzgerald, in which an account is given of the trial itself, with information concerning its origin, and the true names of the characters whom Dickens introduced into the case.

With characteristic individuality, Mr. Andrew Lang, in his preface to his new

study of Tennyson, writes: "The works of the 'localizers' I have not read." "The professed commentators I have not consulted." "I have not dwelt on parallels to be found in the works of the earlier poets." These are refreshing innovations.

The "Academy" comments joyously on the report that Mr. George Moore is cutting down both "Evelyn Innes"

and "Sister Theresa" in order to get them into one volume; and suggests the question whether every novelist who has written an abnormally long story ought not to be compelled by statute to issue it also in a sort of Liebig's extract.

A Glasgow clergyman, the Rev. William Fergus, being about to publish a novel called "Satan's Holiday," is trying it on his congregation, reading them a portion of the manuscript every Sunday; but with a consideration as rare as it is fine he announces each time before he begins to read, that any one who desires to leave may do so.

It is said that the English edition of the anonymous "Tribulations of a Princess," which Harper & Bros. published a few months ago, will be issued without illustrations, for the reason that the author is so well known in Europe that to publish her portrait would be to disclose her identity. But foreigners who are curious have only to turn to the American edition.

Under special commission from the Japanese government, Dr. Murakami, of Tokio University, has been engaged for two years, searching in Europe for evidence of the relations between Japan and the European Powers before the former country was closed to foreigners. He has made important finds in the archives of the Vatican, and the Italian, Dutch and British governments. At the India Office he discovered two Japanese MS. documents of the time of James I.

Fancy Supplementing Faith, or Fancy a Substitute for Faith—name it what the reader pleases, it would seem that the series of stories of the future life, begun so brilliantly with "Gates Ajar," must have culminated in "Within the Gates." Choosing, as so often

before, the physician's calling for her hero, Elizabeth Stuart Phelps imagines, with insistency of detail, the emotions of a man of marked individuality and attainment, at his sudden entrance upon a world to which he has before been quite indifferent. This story is shorter than its predecessors and is cast in the dramatic form. Houghton, Mifflin & Co.

John Uri Lloyd follows his much-talked-of "Stringtown on the Pike" with another story of Boone County, Kentucky. The hero of "Warwick of the Knobs" is a "hardshell" Baptist preacher—narrow, rigid and self-willed, but intensely earnest—and the border troubles of the Civil War form the background for the tragedy of his life. Mr. Lloyd's work impresses one as done with thorough knowledge of the region he describes, and with unusual sympathy and painstaking; but, thus far, it has lacked the touch of imagination to fuse the material he so conscientiously collects. Dodd, Mead & Co.

Golf links, automobile course, football field, campus, press-room and lobby have all served their turn for fiction, and now we have a volume of "Wall Street Stories," in the same short, crisp, entertaining and ever-popular style. The author, Edwin Lefèvre, writes with expert knowledge; indeed, he is sometimes almost too technical. But his stories are so ingenious and so varied, and they are told with such dry humor and such shrewd understanding of human nature—and they point so many morals, withal, if the reader cares for morals—that it would be ungracious to find any fault with them. McClure, Phillips & Co.

The success of "Sir Christopher" and "The Head of a Hundred" leads Little,

Brown & Co. to bring out a new edition of "White Aprons," which stands latest in historical order among Maud Wilder Goodwin's charming trio of Colonial stories. A romance of Bacon's rebellion, it brings before the reader events whose importance is often under-estimated, sketching with especial clearness the dashing leader of that ill-starred movement. Its heroine's journey to the court of Charles II for her lover's pardon introduces scenes and characters in picturesque contrast to the simple Virginia life of the day. Carefully written, full of color and incident, and always readable, Mrs. Goodwin's books are deservedly among the most popular of their class.

Delicate in style, sympathetic in temper and exquisite in its pictorial embellishment, Mr. Dallas Lore Sharp's "Wild Life Near Home" makes a strong appeal to all who have vision and affection for the small creatures who build in our tree-tops or run along our fences. Birds, rabbits, squirrels and other small folk of the woods and fields and gardens Mr. Sharp knows with the intimate knowledge of friendship rather than as a mere student. He has watched them closely and written of them lovingly; and Mr. Bruce Horsfall, who decorates the books with scores of drawings, is a congenial spirit with like insight and like gift of loving portraiture. Never were dainty nature-essays more daintily illustrated; the book is a delight to the eye, fascinating for what it conveys and the form in which it conveys it. The Century Co.

It is fortunate that "Mistress Joy" is quite twice as delightful as the average historical novel, for the reader's gratitude must be divided between two authors, Grace MacGowan Cooke and Annie Booth MacKinney. The period of their story—that following the cession of the Mississippi Province

by Spain, and associated with the schemes of Aaron Burr—is one of sharp contrasts, and they have made effective use of them. Their heroine is as fascinating in the modest cabin of her father—pastor to the scattered Methodists in the wilderness about Natchez—as in her uncle's splendid home in New Orleans, where she crowns the gaiety of the season which is to test her "vocation" by a dance with the young Duc d'Orléans. The hero, a man of force and distinction, is admirably drawn. But nothing in the whole book deserves more praise than the sketch of Pastor Valentine. Types like his are so often caricatured that it is pleasant to find one sympathetically and delicately handled. The Century Co.

Not since "A Fool's Errand" has there been a novel dealing so strikingly with the race problem in the South as "The Marrow of Tradition," by Charles W. Chestnutt. A study of conditions now existing, it must inevitably excite feelings various as the views of those who read it, but few will deny its interest and power. Its central characters are two daughters of one father—both beautiful, cultivated and rich, and both married to men of professional reputation, but one white and the other "colored"—and its pivotal incident is the refusal of the husband of one to allow the husband of the other to be called in consultation to his sick child. Mr. Chestnutt writes with obvious fairness of intention, and with no attempt to idealize the race whose cause he presents. His work has gained greatly in evenness and in range since it first began to attract notice, and has for some time been of a quality to command attention for its own sake, quite apart from anything personal to himself. The present volume is by far his best. Houghton, Mifflin & Co.

## FROM THE PERSIAN.

I know of a land that knows a lord  
That's neither brave nor true;  
But I know of a sword, a sword, a  
sword  
Can cut a chain in two.  
Its edge is sharp and its blade is  
broad;  
I know of a sword, a sword, a sword  
Can cut a chain in two.

I know of a land that's sunk in shame  
And hearts that faint and tire,  
And I know of a name, a name, a  
name  
Can set the land on fire.  
Its sound is a brand, its letters flame;  
I know of a name, a name, a name  
Will set the land on fire.

I know of hearts that loathe the  
wrong,  
That still are leal and true;  
And I know of a song, a song, a song  
Can break a fetter through.  
Oh, you who long, and long, and long,  
I'll give you a song, a song, a song  
Will break your fetters through.

*From "Songs from the Book of Jafar."*

## INHERITANCE.

As flow the rivers to the sea  
Adown from rocky hill or plain,  
A thousand ages toiled for thee  
And gave the harvest of their gain;  
And weary myriads of yore  
Dug out for thee earth's buried lore.

The shadowy tollers for thee fought,  
In chaos of primeval day,  
Blind battles with they knew not  
what;  
And each before he passed away  
Gave clear articulate cries of woe;  
Your pain is theirs of long ago.

And all the old heart-sweetness sung,  
The joyous life of man and maid,  
In forest when the earth was young,  
In rumors round your childhood  
strayed;  
The careless sweetness of your mind,  
Comes from the buried years behind.

And not alone unto your birth  
Their gifts the weeping ages bore,  
The old descents of God on earth  
Have dowered thee with celestial  
lore;  
So, wise, and filled with sad and gay,  
You pass into the further day.  
A. E.

## A SONG.

I have loved flowers that fade,  
Within whose magic tents  
Rich hues have marriage made  
With sweet unmemoried scents  
A honeymoon delight,—  
A joy of love at sight,  
That ages in an hour:—  
My song be like a flower!

I have loved airs, that die  
Before their charm is writ  
Along a liquid sky  
Trembling to welcome it.  
Notes, that with pulse of fire  
Proclaim the spirit's desire.  
Then die, and are nowhere:—  
My song be like an air!

Die, song, die like a breath,  
And wither as a bloom:  
Fear not a flowery death,  
Dread not an airy tomb!  
Fly with delight, fly hence!  
'Twas thine love's tender sense  
To feast; now on thy bier  
Beauty shall shed a tear.  
*Robert Bridges.*

## THE WATER OUSEL.

Beneath the brook, with folded wings  
The Ousel walks; and one may hear,  
In happy hour, the song he sings,  
Submerged yet elfin-sweet and clear.

Oh, heart of life, thy flitting cease!  
Beneath the glittering show of  
things  
Sink down, sink deep, and find thy  
peace  
In happy song and folded wings!  
W. V. Taylor.

*Good Words.*

